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Special Libraries, October 1973

Special Libraries Association

special libraries

October 1973, vol. 64, no. 10

- ☐ Of Manuscripts and Archives
- ☐ Audio Cassettes
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- ☐ Library School Curriculum
- ☐ Computer Search Services
- ☐ Biomedical Journal Selection

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LAW AND DEVELOPMENT FINANCE IN ASIA

(A 10-Volume Series of Books)
Edited by David E. Allan, University of Western Australia;
Mary E. Hiscock, University of Milbourne, and Derek Roebuck, University of Tasmania

Crane, Russak announces a new 10-volume series of books, *Law and Development Finance in Asia,* which reviews the legal systems and security laws affecting the free flow of development finance in nine Asian countries.

The series began this spring with the volume on Indonesia and will be published within a one-year period. It will cover various aspects of commercial law needed for finance, development, or other projects in Indonesia, Singapore, Japan, Ceylon, The Philippines, Korea, The Republic of China, Thailand, and Australia. One volume is devoted to each country. The final volume will survey the problems of development financing through loans. The series is of practical interest to law firms, organizations, and businesses interested in investment and/or development in these countries. Government agencies and companies doing business in Asia will find these volumes invaluable as references in their libraries and legal departments.

The research for the series was conducted under the direction of Professor David Allan, Miss Mary Hiscock, and Professor Derek Roebuck, all eminent legal authorities. It also involved a research team of lawyers – practicing and academic, and investment specialists drawn from many countries in the regions covered.

☐ Vol. 1 CREDIT AND SECURITY IN SINGAPORE: The Legal Problems of Development Finance. Edited by Koh Kheng Lian, D.E. Allan, M.E. Hiscock, and D. Roebuck. *May 1973* $17.50

☐ Vol. 2 CREDIT AND SECURITY IN INDONESIA: The Legal Problems of Development Finance. Edited by Sudargo Guatama, David E. Allan, Mary E. Hiscock, and Derek Roebuck. *April 1973* $10.75

☐ Vol. 3 CREDIT AND SECURITY IN JAPAN: The Legal Problems of Development Finance. Edited by Hisashi Tanikawa, David E. Allan, Mary E. Hiscock, and Derek Roebuck. *1973* $11.75

☐ Vol. 4 CREDIT AND SECURITY IN CEYLON: The Legal Problems of Development and Finance. Edited by Wickrema Weerasooria, David E. Allan, Mary E. Hiscock, and Derek Roebuck. *Nov. 1973* Approx. $14.75

☐ Vol. 5 CREDIT AND SECURITY IN THE PHILIPPINES: The Legal Problems of Development Finance. Edited by Sixto T.J. de Guzman Jr., David E. Allan, Mary E. Hiscock, and Derek Roebuck. *Dec. 1973* In prep.

☐ Vol. 6 CREDIT AND SECURITY IN KOREA: The Legal Problems of Development Finance. Edited by Kwack Yoon Chick, David E. Allan, Mary E. Hiscock, and Derek Roebuck. *Sept. 1973* $11.75

☐ Vol. 7 CREDIT AND SECURITY IN THE REPUBLIC OF CHINA IN TAIWAN: The Legal Problems of Development Finance. Edited by Loh Jen-kong, David E. Allan, Mary E. Hiscock, and Derek Roebuck. *Oct. 1973* Approx. $14.75

☐ Vol. 8 CREDIT AND SECURITY IN THAILAND: The Legal Problems of Development Finance. Edited by Chitti Tingsabadh, David E. Allan, Mary E. Hiscock, and Derek Roebuck. *Dec. 1973* Approx. $11.75

☐ Vol. 9 CREDIT AND SECURITY IN AUSTRALIA: The Legal problems of Development Finance. Edited by David E. Allan, Mary E. Hiscock, and Derek Roebuck. *Jan. 1974* Approx. $11.75

☐ Vol. 10 CREDIT AND SECURITY: The Legal Problems of Development Financing. Edited by David E. Allan, Mary E. Hiscock, and Derek Roebuck. *Feb. 1974* Approx. $11.75

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Pictures for the Picture Division

During the Program Planning meeting for the Picture Division at the Pittsburgh Conference in June 1973 suitable topics for the Toronto Conference 1974 were tentatively discussed.

One of the topics suggested was that of *Native Peoples of North America.*

As Program Chairman of the Picture Division I am suggesting the following bibliographic project to members of the Division and other librarians who are custodians of primary pictorial sources on the North American Indians and Eskimos.

We will attempt to compile a picture bibliography or more accurately an iconography of the available pictures of Indians and Eskimos in our respective institutions. Pictures in books, serials, or other publications should be excluded from the project because these could be searched in book sources. Our aim is to unearth material that is either totally unknown or little known beyond a narrow group of specialists.

In order to achieve uniformity in entries the *Anglo-American Cataloging rules* for "Pictures, Designs, and other Two-Dimensional Representations" should be used. These are explained in Chapter 15, p.329–342.

For specific cataloging problems consult George Hobart, Curator of Documentary Photography, Prints and Photographs Division, Library of Congress, 110 Second Street, S.E., Washington, D.C. 20540.

Members of the Picture Division! Do your homework before you arrive in Toronto! Send your picture bibliographies to Mrs. Arline Baxter, New York Public Library, Fifth Avenue & 42nd Street, New York, N.Y. 10018.

Renata V. Shaw
Program Chairman
SLA Picture Division

Who's Afraid to Ask?

As a devoted public library user, albeit special library professional, I've never been quite content to accept that SLA's "motto" sufficiently distinguishes between the jobs to be done in the two shops. With reluctant credit to Dr. Reuben, I wonder if the following gets any closer: "The right book to the right person at the right time" is subdivided:

Public libraries: Here is the book you need, though you didn't know you needed it 'till you saw it, and didn't know how to ask.

Special libraries: Here is the book with the information you knew you needed, though you didn't know how to find it, and were afraid to ask.

Occasionally, I feel the first job is tougher.

Justine Roberts
Mill Valley, Calif. 94941

A Pat on the Back

Your inclusion of Frank Andrews' "Prison Libraries: How Do They Fit In?," [*Special Libraries* 64 (no.7): (Jul 1973)], deserves much praise. His article had a special timeliness in the light of current prison unrest, such as the riots at San Quentin and Indiana State Prison, September 1973. Furthermore, his article had value in the enthusiasm he showed for the operation of his library, its collection, staff, and administration.

With his enthusiastic emphasis of the educational and spiritual value of reading to prisoners, Mr. Andrews' piece reminded me of some of the very moving passages about libraries in Malcolm X's autobiography. Therein he states that the "Norfolk Prison Colony represented the most enlightened form of prison . . ." and in the next paragraph he adds that the ". . . library was one of its outstanding features." (*The Autobiography of Malcolm X,* New York: Grove Press, Inc., 1964, p.158.) In the next chapter he describes in detail his wide-ranging reading and comments, "Any college library would have been lucky to get that collection." (Ibid., p.174.)

If only all men in prison could derive such benefit from a library!

Shirley T. Bornstein
Bethesda, Md. 20034

Special Libraries welcomes communications from its readers, but can rarely accommodate letters in excess of 300 words. Light editing, for style and economy, is the rule rather than the exception, and we assume that any letter, unless otherwise stipulated, is free for publication in our monthly letters column.

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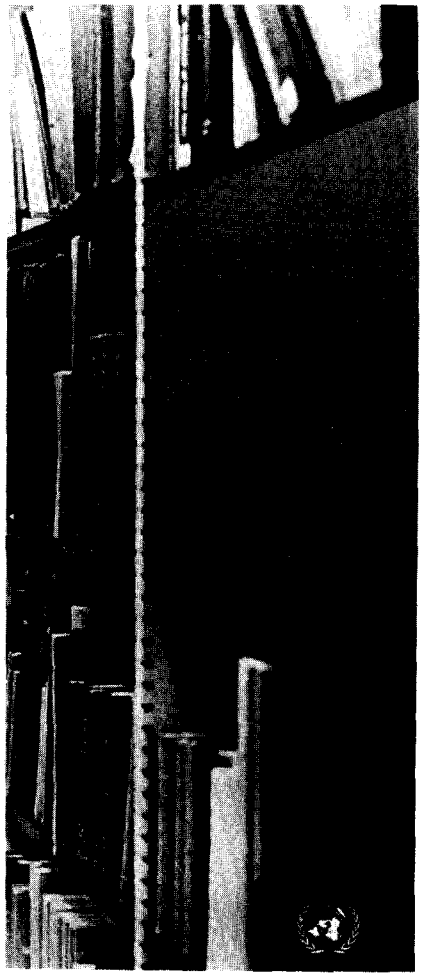

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Of Manuscripts and Archives

Robert W. Lovett

Baker Library, Graduate School of Business Administration,
Harvard University, Boston, Mass. 02163

■ Manuscripts and archives are important to both the historian and to the companies of origin. What should be collected and when is considered here. Also discussed are the principles of acquisition for these similar materials. The chief difference is that archives are "received" from one's parent body, whereas manuscripts are "collected," whether by gift of deposit or purchase.

THE Curator of Manuscripts and Archives at the Baker Library, Graduate School of Business Administration, Harvard University, deals with both of these kinds of materials. The manuscripts—the larger portion of the holdings—consist of the records of individual business firms or businessmen. Once, when they were in the custody of the firms themselves, they were archives; now that they have been "collected" by the Baker Library, they are, technically, manuscripts or papers. The archival part of the collection consists of a part of the record of the business school itself; this includes the "record" copy of publications by the school and even of the faculty. Following the practice of the Harvard Archives, a further distinction is made between the records of school offices and such "fringe" or supplementary categories as materials relating to student or alumni clubs, student and faculty life, and the like. Although the techniques of handling manuscripts and archives are in most respects similar, these two categories, including their finding aids, are kept separate.

An editorial in the journal *Archives** (Oct 1971) makes this distinction clear. It refers to a news item about the establishment of "the Tate Archive" at the Tate Gallery in 1970. The writer states that what was meant was "a collection of documents bearing on the history of 20th century British art." He stated that the real Tate archives consists of minutes of the governing body, correspondence of its Directors, files of its own catalogs, etc. And he concluded with the reflection that a collection of unrelated documents is no more an archive than a box of old photographs is an art gallery.

As an aside, the following items illustrate the kind of material the Baker Library manuscript collections include. There are ten account books, dating from 1764 to 1802, of Daniel Rea & Son, Boston, Mass. The collection is classified under house painting, but Rae did much decorative painting, as of signs, buckets, floor cloths, furniture, and coffin plates. Researchers from Winterthur Museum have found this collection fruitful. There are a few collections—mostly single account books—of early carpenters, and a

* What Is an Archive? Or, More Thoughts on Terminology. *Archives* 10 (no.46): 37 (Oct 1971).

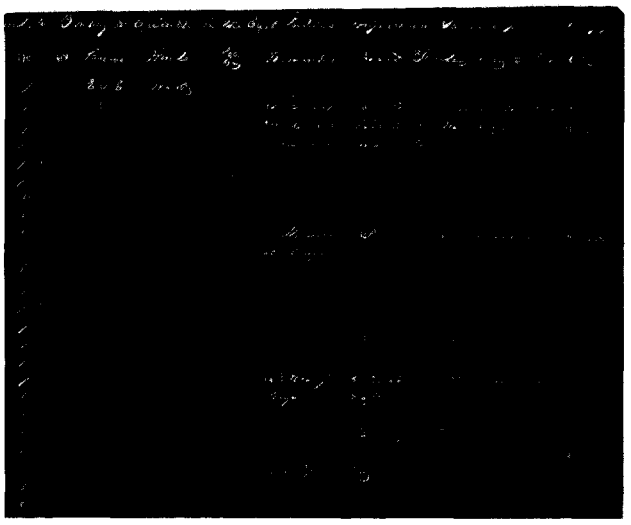

Figure 1. A page from the log of the Ship Crown Point bound for Bombay or Calcutta Jan 5, 1862. Tudor Collection, Manuscripts Division, Baker Library, Harvard Business School.

• •

diary-type volume for a carriage maker, of Charlestown. In the collections of papers of merchants of both the 18th and 19th centuries may be found records of purchases of furniture, both at home and abroad. Restorers of historic places in Hawaii and on the West Coast have consulted such collections, in hopes of finding information of this sort. In addition, the library has a number of trade catalogs, to 1900, as well as trade cards, and pictures of business interest. The manuscript collections have been recorded in the National Union Catalog of Manuscripts and the trade catalogs in Romaine's *Guide*. However, no records of artists, or even of art dealers, are in the collection.

The Why and What

The first question often asked is "Why save manuscripts and archives?" Any corporate entity of a certain age and size will need to refer to older records for its own in-house use. In addition to answering questions of policy, such materials may be of use for publicity or for an anniversary history. Of long-run significance is the possible interest of scholars, representing a variety of fields.

A serious program in this field is not something to be entered into lightly. Manuscripts and archieves can be voluminous, especially 20th century ones, and they take space and money for handling and servicing. Support of top management is desirable, and in fact necessary, before a full-fledged program can be undertaken.

A brief indication of what to save, in the case of an institution, has been noted in the quotation about the Tate Gallery. In general, one may say that material should be saved which bears on the origin, structure and function of an organization or activity; or, to put it differently, on changes in policies and procedures. In the case of business records, we look for minutes, reports, the key financial records, correspondence, at least of the top people, examples of publicity and advertising, and pictures. In the case of individuals, such categories as diaries, correspondence, financial records, speeches, unpublished papers, clippings, pictures, are of obvious importance. Often selection is necessary, but weeding, as of correspondence, is difficult and time-consuming. It is surprising how much can be eliminated from a file just in the removal of duplicates. Sampling is a technique which may be applied to long runs of routine types of material, but it needs to be done carefully. Today, an effort may be made to create records, as in the case of tapes and transcriptions made for an oral history program.

Where? Who?

Where material should be collected and by whom are questions which may be touched on quickly. Most librarians feel the library is the place. In business the records manager is the more likely person, or even the public relations department or the corporate secretary. If an institution does not wish to hold its older records, or is unable to do so, an effort should be made to have them transferred to a depository which can care for them.

When to Save

The question of "when to save" is not difficult to answer. To the question "how

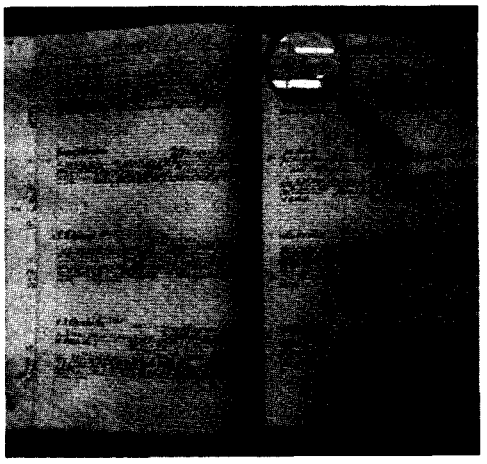

Figure 2. One of some 2500 handwritten credit ledgers of R. G. Dun & Co. The Dun & Bradstreet Collection, Baker Library, Harvard Business School.

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current," the author would answer as current as possible. Here one may run into the problem of confidentiality, but arrangements may be made to delay access to certain files until a certain date. It is helpful if procedures can be established for the archives to receive routinely current notices, releases, and the like. Correspondence may be transferred to archives in segments. The records management people have a practice known as scheduling, whereby records are sent at regular (stated) intervals to intermediate storage, and from there either are destroyed or sent to archives. When a person retires or is transferred, it is convenient to look for his papers, and perhaps also to conduct an oral interview.

How?

The matter of "how to save" involves control over one's materials, or their recording. Manuscripts and archives differ in this respect from books. Catalog cards may be used, in fact are even desirable, for name indexes. But more common are inventories, guides, or registers, in which the material is recorded, series by series. *Provenance,* or the separation of material according to its source, is an important word in archives; and an important principle is that of "respect for the original order." In other words, records reflect organization or activity. Only if the records are in complete disorder, or if the order in which they are received is wholly unusable, should a new order be imposed.

There are several levels of arrangement and recording, from listing of collections as a whole (as in the Baker Library's *Guide to Business Manuscripts,* 1969), to registers of individual collections, by series, by folders, and even to listing by individual documents. The latter method, sometimes known as calendaring, is expensive and is little done now. It is better to have "general" control over all collections than to have detailed control of only one; the detailed control can come later, as time permits. Some materials lend themselves to simplified handling, such as photographs of individuals arranged alphabetically by name.

Preservation of books and manuscripts is a subject in itself, better discussed elsewhere, other than to mention such matters as unfolding documents, removing pins and clips; placing in acid-free folders and in low-acid boxes or containers; and delegating repairs or lamination to experts.

Conclusion

Material is collected to be used. Use is facilitated by making the existence of collections known to potential users. This can be done by listing in the National Union Catalog of Manuscript Collections; by recording in your own catalog; by noting in popular or scholarly journals. Sometimes restrictions on use are necessary, in order to obtain material, yet these should be kept to a minimum. Access should be as open as possible; yet, no one has a presumptive right to publish material in manuscript collections of the University. When receiving a collection, it is well to clear up, if possible, the matter of literary rights; this applies particularly to papers of an individual.

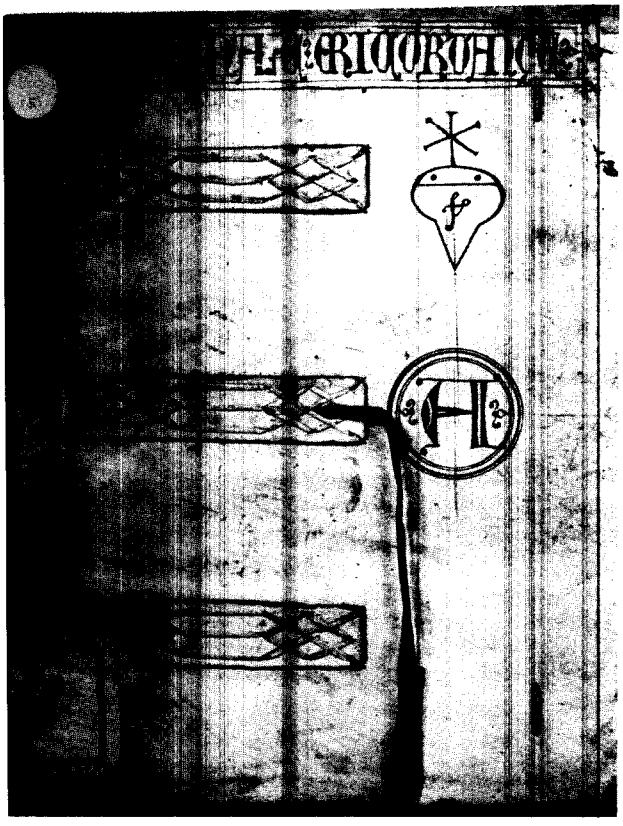

Figure 3. The cover of an account book of a branch of the Medici Family. The collection numbers 144 volumes and dates from c.1400 to 1600. Baker Library, Harvard Business School.

• •

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Evans, Frank B., comp. / *The Administration of Modern Archives: A Select Bibliographic Guide.* Washington, Office of the National Archives, 1970. 213p.

Archives

Schellenberg, T. R. / *Modern Archives: Principles and Techniques.* Chicago, University of Chicago Press, 1956.

Schellenberg, T. R. / *The Management of Archives.* New York, Columbia University Press, 1965.

The Society of American Archivists has committees in such fields as College and University Archives, Church Archives, State and Local Records, Urban and Industrial Archives, and the Collecting of Manuscripts. Its secretary is Robert M. Warner, Michigan Historical Collections, Ann Arbor, Mich. Its quarterly, *The American Archivist,* contains useful articles, news notes, committee reports, and an annual bibliography.

Manuscripts

Bordin, Ruth B. and Robert M. Warner / *The Modern Manuscript Library.* New York, Scarecrow Press, 1966.

Kane, Lucille M. / *A Guide to the Care and Administration of Manuscripts.* 2d ed. Nashville, American Association for State and Local History, 1966.

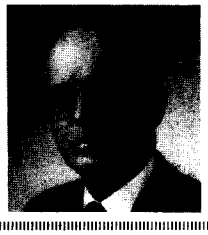
The American Association for State and Local History is sponsoring a new manual on the arrangement and care of manuscripts, by Kenneth W. Duckett, of Southern Illinois University. The Association has also issued a number of useful leaflets and publishes a monthly, *History News.* William T. Alderson is in charge; the address is 1315 8th Ave. South, Nashville.

Manuscripts, issued quarterly by the Manuscript Society, is of special interest to collectors. The Executive Secretary is Mrs. Wanda M. Randell, 120 Prospect Ave., Princeton, N.J.

Preservation of Books

Lydenberg, Harry Miller and John Archer / *The Care and Repair of Books.* 4th rev. ed. John Alden, ed. New York, Bowker, 1960.

Received for review Oct 20, 1972. Manuscript accepted for publication Apr 18, 1973. Presented Jun 8, 1972, at a joint meeting of the Museums, Arts & Humanities and Picture Divisions, during SLA's 63rd Annual Conference in Boston.



Robert W. Lovett is curator of manuscripts and archives, Baker Library, Graduate School of Business Administration, Harvard University, Boston, Mass.

Business Information Audio Cassettes: Their Care and Feeding

Valerie Noble

The Upjohn Company, Kalamazoo, Mich. 49001

■ As special librarians are increasingly involved with audio cassettes, so are they faced with new types of problems. Confronted with sparse information about the media, the author, through trial and error, eventually produced basic guidelines and criteria for bibliographic control, storage, circulation, and materials sources. These are described and workable solutions are presented.

SOMEONE out there *is* listening as evidenced by the acceptance and proliferation of the now-familiar audio cassette as a business communication medium. It is also true, unfortunately, that series appear, seem promising, and then vanish without any obvious reason. For example, after two years' publication, *Fortune*'s topical monthly, "The Executive Voice," ceased in December 1972. It may be assumed that high production costs, coupled with a slim subscription base, spelled its doom but the librarian never quite knows when to expect such a demise. Others, such as the *Nation's Business* limited topic, eight-title "Executive Seminars in Sound" series, with its broadly ranging practical management orientation, has already appeared more durable and, in the long run, may be more applicable to the special library's clientele. Yet in many instances, problems of continuation or of real value are not really deciding factors in whether or not to acquire. There is the overriding influence of patron interest and many special libraries maintain a collection regardless of other factors. Sources for such collections are, of course, specific acquisition plans and, significantly, gifts from a variety of benefactors.

This discussion, therefore, addresses itself not to the intrinsic merit of the medium or methods of acquisition, but to techniques and possible methods of bibliographic control, retrieval, storage, and circulation as well as one potentially valuable information source.

Bibliographic Control

An authoritative and standardized set of cataloging rules *(1)* for nonbook materials was published in early 1973 and is available for detailed consultation. This author, however, believes that many special librarians may not yet be aware of or have access to these guidelines, or choose to follow them. Therefore, the following simplified cataloging procedures, which resulted from an eighteen-month trial and error period in one library, are presented because the results produced a workable system in which slight format allowances can be accommodated. In deriving these rules, a number of nonbook cataloging sources *(2–4)* were consulted since it was felt that there might be a variety of possible for-

Figure 1.

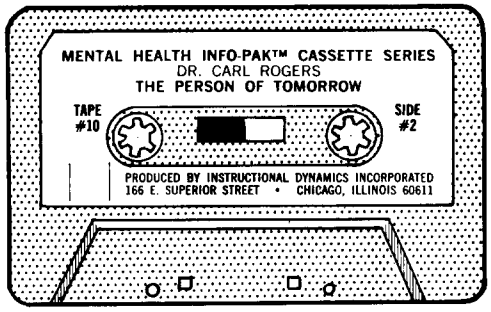


Figure 2.

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Cas.   Rogers, Carl
          Mental Health Info-Pak Cassette Series. [1970].
          10 cassettes.

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       #2. The place of feelings and emotions. #3.
       Is it possible to be yourself. #4. The struggle
       to become a person. #5. What are the goals of
       life? #6. What it means to be married. #7.
       Relationships with our children. #8. The gen-
       eration gap. #9. The lonely person. #10. The
       person of tomorrow.
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Figure 3.

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Cas.   Nation's Business.
          Executive seminars in sound. Number 1, 1970 -
BL     number 8, 1971.
          8 cassettes.

       Titles: #1.How to get your ideas across. #2.Make
       the most of your time. #3.Your role as a decision
       maker. #4.Guide to better people management.
       #5.Mastering the art of delegating. #6.Organizing
       your plans and planning your organization. #7.
       Strategies of moving ahead. #8. How to live with
       your own success.
```

Figure 4.

mats which could be selectively adapted to cassettes. After examination of these sources, the decision was made to utilize a traditional catalog card format with the card catalog designated as the avenue for access and retrieval. The following uniform and standard procedures were then initiated:

1. Identify and select the responsible individual in order to specify the main entry, i.e., who is more important, the one who is speaking or the one who is producing the cassette. As an example, *Nation's Business* is readily identifiable as the essential producer and source of the "Executive Seminars in Sound" (Figure 1). On the other hand, in the instance of the several series produced by Instructional Dynamics Incorporated, it is more important to enter the cassette under the speaker such as Dr. Carl Rogers discussing Mental Health (Figure 2) or Dr. Milton Freidman, economics.

2. Describe the contents on the main entry card. Depending on the nature of the material, this content note ranges from a single subject (Figure 3) to multiple topic analysis (Figure 4). It is important to remember, given the nature of most cassettes, that although the title may be indicative, it is not as significant as the nature of the material.

3. Review the cassette contents and assign highly selective subject headings based on the relevant authorities used in your library or *Business Periodicals Index* or *Library of Congress Subject Headings.*

4. Unless the library plans to move into video cassettes, simply identify the fact that it is a cassette and number those available. If video cassettes loom in your future, this imprint entry must specify the nature of the cassette format.

5. Prepare and trace other possible title and author entries—when the latter differs from the main entry—according to the existing collection and, when logical, potential client interests.

6. Photocopy the main entry card, or even the front of the cassette itself if it carries full information, for announcement in acquisitions bulletin.

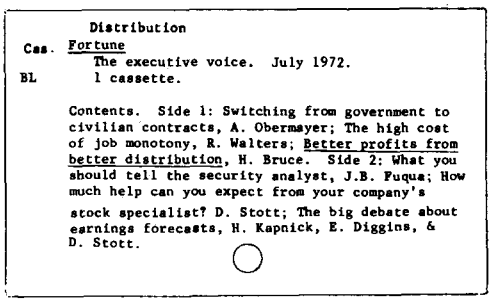

Figure 5.

7. Duplicate, as needed, additional subject and title cards from the main entry card.

8. Underline, in red, specific subject, title and authors (Figure 5).

9. Photocopy main entry card for shelf list.

10. Interfile main cards alphabetically behind the audio cassette tab in the card catalog. This can be used only with collections which use format divisions, such as films, records, etc. In multimedia catalogs, main entries are interfiled with other materials.

Storage

If you are a novice collector, it is wise to acquire reasonably priced storage facilities at the outset. This permits flexibility while planning for permanent installation and also involves minimum initial dollar investment. Gaylord Brothers, Inc., for instance, offers utilitarian, covered boxboard filing cases which accommodate thirty cassettes in cases. The minimum order of three costs less than $7.00. Later, in the move toward permanent storage, you will discover that prices increase dramatically. For example, Gaylord's "Luxor" steel cabinets range from about $60.00 for one-drawer housing of 125 cassettes in boxes or containers to over $300.00 for a six-drawer numbered compartment case which holds 960 cassettes. In these systems, tapes may be stored either horizontally or vertically.

Another storage option for single-subject, multiple tape audio series is the book storage device which holds a maximum of 12 cassettes. This method facilitates classification and intershelving with the book collection.

In addition to the foregoing, and as Weihs *(1)* states, archival tapes should be rewound once a year, temperature and humidity extremes should be avoided, and the storage area or shelving must not be subject to vibrations and must be free of all magnetic fields.

Retrieval and Circulation

The author neither accessions nor classifies the collection, but arranges and identifies it by author or producer. If materials are not identified on the edges, they are labeled with the series date, number or volume.

Cassettes should be stored in cases even though more actual space is required. Although the raw cassette is, in itself, a durable product, cases are recommended for 1) facility of library identification; 2) facility of circulation identification; 3) protection against ubiquitous dust and dirt; 4) protection for interdepartmental travel.

Regular book cards are used for cassette circulation control and date due slips are taped to the cassette case. The same due date which is assigned to circulating journals is designated for cassettes and they may be renewed under the same conditions as other materials.

Information Sources

The lack of a single source cassette catalog has been partially resolved. In 1971, it was reported *(5)* that the *Harrison Tape Catalog,* although highly limited, seemed a promising source for information. In retrospect, however, *Harrison* is limited to the popular areas of music, poetry, and humor. With the beginning of 1973, the *Library Journal/ School Library Journal*'s new "Previews" appeared to offer some access. Analysis of initial issues revealed that there is scant, if any, nonschool media coverage.

A recent entry into the field, *The Directory of Spoken-Voice Audio-Cas-*

settes, may partially resolve the lack of a source for business cassettes. First published in May 1972, it shows some evidence of staying power through efforts to update sources by a quarterly newsletter. Although the publisher in some instances relies on package blurbs for descriptions, the service provides contents, prices, playing time, and ordering sources. Subjects include: social studies, languages, literature, business, health sciences, law, etc. Major catalogs which are available from other sources are also included. A new edition is due in November 1973, and the interim newsletter is available on a subscription basis. Information about both the directory and the newsletter may be obtained from Cassette Information Services, Box 17727, Los Angeles, Calif. 90057.

It is hoped, in conclusion, that although numerous special librarians have probably tackled the cassette problem with varying degrees of personal ingenuity and subsequent success, that the foregoing techniques, though admittedly evolved from "scratch," may offer some guidance to that individual who has delayed cataloging and circulating this kind of material.

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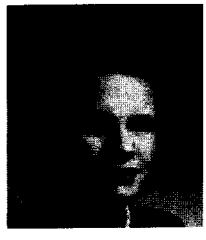

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Cooperation Between Academic and Special Libraries

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■ The concept of library cooperation is examined generally and that among academic libraries, among special libraries, and between academic and special libraries as reported in the recent literature. The question of the probable future of cooperation between academic and special libraries is addressed and possible support mechanisms for establishing soundly based cooperative undertakings are suggested.

THE FIRST MEANING of "cooperation" in *The Random House Dictionary* is "an act or instance of working together for a common purpose or benefit; joint action." This definition is one which every person involved in cooperation would be able to accept, if for no other reason than the fact that it is basic.

For the purposes of this presentation, academic libraries are taken to be synonymous with university libraries. Rogers and Weber *(1)* define a university library as "a research library which is typically a congeries of special libraries, rather than merely a major collection on a fairly circumscribed area or subject, such as are the Huntington, Folger, Linda Hall, Pierpont Morgan, or Newberry libraries." I have omitted from consideration those specialized libraries to be found within the jurisdiction of university governance: such libraries as serve business schools, education curriculum laboratories, specialized scientific laboratories, various centers, institutes and others. These are all part of the larger university library system and may be properly thought of as a case of internal coordination rather than cooperation.

The Special Libraries Association provides the following statement: "Special libraries serve industry, business, research, educational and technical institutions, government, . . . newspapers, museums, and all organizations requiring or providing specialized information" *(2)*. I have excluded from this definition the "special departments of public and university libraries" for the reason given previously.

What Is Library Cooperation?

In order to answer this question, a search through *Library Literature* under the appropriate headings was instituted. It soon became apparent that it was not possible to read all the articles and books cited; reference could only be made to those which dealt with cooperation between academic and special libraries. Even in this small sub-set, it became obvious that much of what has been published falls into the category of encomiums on cooperation rather than substantive evaluations, and therefore, I have been most selective in the source material.

Within this limited scope, there is plenty of room for divergence of opin-

ion on what library cooperation is all about. Budington *(3)* says "the ultimate objective of librarianship and information sciences is to make possible those moments when information transfer takes place, from media to minds. . . . As seekers, custodians, and purveyors of information, we join in co-operative ventures to achieve more comprehensive coverage and easier access through planning and sharing our total resources."

Blackburn *(4)* writes that "Interlibrary cooperation . . . is that which occurs across jurisdictional boundaries, between or among libraries that operate under separate fiscal authorities. It consists of interaction and interdependence . . . and it involves a relationship from which each partner is free to withdraw."

Trezza *(5)* says "True cooperation is *unselfish* cooperation. It is *never* equal. It is based on the concept of 'what can I do for you' rather than 'what do I get out of it.' Unselfish cooperation is difficult."

Many writers, without attempting a definition of library cooperation, give prescriptions under which cooperative ventures will work or without which they will fail. Dougherty *(6)* gives eight criteria against which, he claims, few existing cooperative programs can be measured as successful. A number of "propositions" and "operating hypotheses" are offered by Nelson *(7)* which he hopes "will prove useful in thinking about the wide varieties of potential cooperative endeavors." We shall return to these later.

Ellsworth Mason *(8)* says that "the only factor that can possibly make this situation [i.e., cooperation] acceptable is the clear possibility of a *major* extension of our library's capabilities, and this is never present. . . . We are applying penny-ante solutions to what is now a trillion dollar bankruptcy in librarianship."

With these few examples of definitions, prescriptions and statements about library cooperation, and with a nod to the pounds of paper on which hundreds of articles on the subject have appeared, it is apparent that interlibrary cooperation has long been a topic on which librarians have waxed eloquent. Unfortunately to date, with very few exceptions, this eloquence seems to have carried about the same weight as a patriotic address on a national holiday or a homily espousing the glories of motherhood. But we have not learned any lessons from our own history. Cooperation has become a shibboleth, the magic word that must appear in annual reports, national conferences, and even in testimony before august governmental commissions.

From the way the subject of cooperation has been received, one almost begins to suspect that there is something subversive about it, something that claws at the moral tissue of society, or at least of librarianship. This reception appears to have been so pervasive in the past that librarians have had to go underground to participate in cooperative ventures. Note the ways that the costs of interlibrary loans are hidden in budgets. The National Program for Acquisitions and Cataloging receives its share of brickbats every time it comes up for funding. Cataloging-in-publication spent years underground, and even now in its reincarnation cannot be certain of survival. The Farmington Plan, truly the most imaginative program in cooperation, has had its funding buried deep in library budgets. This brief recital of a few generalized cooperative ventures only serves to highlight what librarians have known all along—namely, that cooperation is at best a very tenuous idea, one which succumbs easily to the exigencies of self-interests and fiscal retrenchment.

Present Cooperative Ventures

This section on present cooperative activities is in three parts: cooperation between academic libraries, between special libraries, and finally between academic and special libraries.

Academic Libraries. Cooperation between academic libraries has recently been written about by Robert Blackburn *(9)*. In this essay, he has chosen to categorize cooperation under four main divisions: physical access to the published

record, bibliographic access, acquisitions or collection building, and administration.

In the section on physical access, Blackburn identifies two ways in which a library makes its collections available to others—by admitting readers as visitors and/or by the use of interlibrary loan. As examples of the former, he cites the fourteen provincial universities of Ottawa which have a cooperative use agreement for visiting privileges, and the universities in Quebec which have agreed to provide both borrowing and visiting reciprocity. In Indiana, the libraries of each of the four state universities grant full services to faculty, students and staff from the other three, and each library contributes to the salary of a librarian assigned to assist visitors at each of the two larger universities, Indiana University and Purdue University.

The use of interlibrary loans needs no documentation. Kaser *(10)* states that "The centuries-old practice of one library lending its books to another is based upon the premise that although books may physically be the chattel of the institution that bought and paid for them, they belong intellectually to the general cultural heritage of mankind and ought somehow to be made available to all men." The practice of interlibrary loan of material has been radically changed by the technology of photocopying. But the blessings of photocopies have not been unmixed. Along with the constant concern of librarians over the possible damage to collections from copying, the newer and more ominous spectre of the legality of copying hangs over our heads.

Bibliographic access, according to Blackburn, must precede physical access, for without it there is no way of knowing who holds what. The National Union Catalog of the Library of Congress, as well as that of the National Central Library in Britain and those being developed in Canada and other countries, begin to provide the base for mobility. There are countless other examples ranging from catalogs of specialized collections of the great libraries, such as the Widener shelf-list from Harvard, to lists of serials held by a single academic library, to regionalized lists of serials holdings such as the incipient Indiana Union List of Serials which includes the holdings of 64 libraries, academic, public, state, and special, located within the boundaries of the state. There is also emerging a new form of the union catalog made possible by the application of the computer. Through the cataloging capabilities of the Ohio College Library Center (OCLC) all member libraries are able to determine, once a book is in the system, who holds copies of it. OCLC has now attracted through various links the Five Associated University Libraries (FAUL), New England Libraries and Information Network (NELINET), and the University of Pennsylvania. More recently the Association of Southeastern Research Libraries has been considering replicating the OCLC system. In Indiana a feasibility study is being conducted on creating a state-wide network which might very well resemble OCLC. The same applies to the libraries in the State of Illinois. Perhaps we may well have here the beginnings of true bibliographical access.

Blackburn's third category of cooperative acquisitions or collection building is the one most difficult to deal with. Academic libraries cannot make unilateral decisions not to acquire material which falls within the offerings of the university. However, at least in public universities, there is often some form of governing board at the state level which has defined, or may do so in the future, the limits of each university, thereby giving some impetus to collection building on cooperative guidelines. Perhaps the one outstanding example of academic libraries sharing collections is the Center for Research Libraries in Chicago.

In the realm of administrative cooperation, Blackburn cites approaches to the problems of the deterioration of paper, the microfilming of rare or fragile materials, and cooperative processing.

SPECIAL LIBRARIES. Cooperation between special libraries has produced its

share of articles. Perhaps the best one has been written by William Budington *(11)* entitled "Interrelations Among Special Libraries." The author cites an article written by Herman Henkle in 1958 which stated that "A review of the bibliography of library cooperation does not disclose much formal discussion of 'cooperation' among special libraries, in comparison with some other types of libraries" *(12)*. Budington then states, "I can only echo these words today [1969]. The overriding characteristic of most such relationships is their informality; in a few cases there is a proprietary factor involved. Neither of these elements favors published descriptions. However, we do find a great variety of conditions and arrangements, formalities and casualness" *(12)*.

Budington chooses to break down the various interrelationships as follows: those within individual corporations, those between corporations, those between corporate and other types of libraries, and the discipline-oriented groups. I have omitted his examples to be found between corporate and other types of libraries because this more properly belongs in the section which follows.

As illustrative of cooperative ventures within intracorporate libraries, Budington cites IBM which has forty-five libraries, about one-third of them overseas, General Motors Corporation which has eighteen libraries, and the Bell Telephone Laboratories libraries. In the IBM system one comprehensive library does photocopying for other IBM libraries, a corporate union list of serials is produced regularly, and one library centrally processes material for five other libraries in a batch mode. Charges are made for this central processing, and its research arm charges for current awareness services as well as retrospective searches. At GMC, the Research Center library makes loans to other units and acts as a locating center for other materials. Transaction fees and service charges are made to other divisions for loans, photocopies, reference services, cataloging, etc. GMC also has a union list of serials of the major libraries. Perhaps the most tightly organized corporate library system is that of Bell Telephone Laboratories. This system provides sophisticated services in the form of union catalogs, automated circulation systems, and reference services for the entire system.

In the area of cooperation between different companies, Budington points out that these relationships are usually completely informal. As an example of this type of activity, he cites the "Insiders," a group of librarians who worked for six different companies in a business complex called the Northstar Center in Minneapolis. These librarians, whose organizations are not competitive, agreed to share resources, to plan acquisitions coverage to avoid overlap, to produce a union list of serials and to initiate a duplicate exchange program.

Among the discipline-oriented activities, Budington cites the libraries at some twenty Atomic Energy Commission sites which work together in a security-sensitive field, as well as one in which bibliographical control is difficult. However, perhaps the most outstanding cooperative activity has occurred among medical libraries. The National Library of Medicine has developed regional medical library centers spanning the country and provided bibliographic control and dissemination through such programs as MEDLARS and MEDLINE. As a final example of this type of cooperation, Hollenberg *(13)* describes the activities of the 29 staff libraries of the Illinois Department of Mental Health. Some of their efforts include a union list of holdings, centralized purchasing and processing, development of microfilm collections of mental health periodicals, and development of a centralized library services budget.

The impact that the specialized professional library associations have on cooperation, the Special Libraries Association and the Medical Library Association to name only two, has been great. These organizations provide the necessary catalytic force often needed to get from an idea to a real cooperative venture. The National Translations Center,

now at the John Crerar Library, came about because of the interest among SLA members in making this material more widely available. These associations sponsor conferences, lectures, seminars, and continuing education programs out of which frequently come new ideas for further efforts at cooperation. In many cases the particular ambience that these organizations provide makes them vital to the continuation of projects and to the creation of new ones.

INTERTYPE LIBRARIES. Intertype library cooperation is described in three publications, among others *(14, 15, 16)*. Reference is made only to those ventures in which the principle thrust has been between academic and special libraries.

In the January 1966 issue of *Library Trends,* Nicholson *(17)* deals with the question of use by special libraries of two academic libraries, M.I.T. and Stanford. After analyzing the data available, the author describes the two plans which in effect sell library services to industry. In the same issue, Budington *(18)* describes service to industry by independent research libraries such as the John Crerar Library and the Linda Hall Library. Although these cannot properly be included as academic libraries, they have many of the same characteristics and render the same types of services.

Shank *(19)* cites several examples of intertype library activity. The Associated Science Libraries of San Diego includes a group of 20 libraries, public, academic and special. The aims of this group include, among others, interlibrary loans, bibliographical assistance, study privileges and referral services. In Texas there are two examples of intertype library cooperation: in Dallas at Southern Methodist University, the Industrial Information Service was created by the holdings of several academic libraries backed up by those of SMU; and in Houston a similar system exists, called the Regional Information and Communication Exchange, with its base at Rice University. Both of these ventures serve the information needs of the area's industries.

In an article by Benson and Phillips *(20)* the authors note the number of special libraries (25) which hold membership out of a total of 89 institutions in the Illinois Regional Library Council.

Strain *(21)* reports on a subject network organized in 1966, known as the Pacific Northwest Federation of Forestry Librarians, composed of special, state, university and federal libraries in Washington, Oregon, Idaho, Montana, and British Columbia. Among the purposes of this chartered Federation are the purchase of forestry-related material not in the region, the furtherance of cooperation, and the planning for fitting this regional group into any national group dealing with agriculturally oriented libraries. In the same article, the author also describes ARLO, a cooperative project of the Art Research Libraries of Ohio, whose membership includes the libraries of art museums, public libraries, and academic libraries.

These are only a few of the cooperative activities which could be cited in which academic and special libraries have shared resources. The most complete source listing intertype library activity is the bibliography by Stentrom *(22)* with an update published in *Illinois Libraries (23)*. An analysis of the entries in both bibliographies from 1960 to 1971, in which academic and special libraries are mentioned, reveals the following number of citations:

Types of Libraries	No. of Citations
Academic-Public-Special-School	45
Academic-Public-Special	61
Academic-Special	17

These citations refer principally to published literature as indexed in *Library Literature.* It is interesting to note that in the category of academic-special only 10 citations occurred from 1960 to 1968 but that seven have appeared from 1969 to 1971, indicating an increase in the number of cooperative ventures between these two types of libraries.

The Probable Future

Every librarian has his idea of what cooperation should involve. Trezza *(5)* maintains that "true cooperation is *un-*

selfish cooperation. It is *never* equal." His doctrine of ask not what this venture can do for you, but what you can do for this venture is idealistic and seems unreal in a pluralistic society. He cannot will differences away and any attempt at egalitarianism must probably await some more truly democratic—or socialistic—society than we presently know.

On the other hand, Dougherty *(6)* proposes eight criteria against which all efforts at cooperation should be judged. He states that "if a cooperative program has not produced measurable changes in most of [these] categories . . ., then it is little more than an inconsequential frill of professional window dressing." While one can agree with Dougherty, it should be noted that not all—nor perhaps even a few—of his criteria will apply in every case of cooperation. It is easy to be sympathetic to his viewpoint, but it seems to represent too mechanistic an approach to such ventures.

Nelson *(7)* has listed nine "propositions" which should be useful in evaluating cooperative endeavors. I have quoted only the first three:

"1. Cooperation is desirable when it benefits the institutions individually or makes them more effective collectively.

"2. Each participating institution in a cooperative venture must benefit.

"3. Cooperation is a voluntary act."

He then goes on to offer some "operating hypotheses" as follows:

"1. No institution is so rich in resources it can be assumed *a priori* to have nothing to gain by cooperation.

"2. Cash transactions can be an appropriate element in cooperative efforts.

"3. The support of top leaders in each institution is essential to successful cooperation.

"4. The cooperative effort must be professionally staffed if permanent and significant results are to be achieved."

Blackburn *(24)* states that "there will likely be increasing restriction on lending and on access to shelves. Increasingly, service to extramural users may be rendered on the basis of fees or subsidies. These eventualities could be interpreted as a decline in cooperation among libraries, but they may also be thought of as an increase of participation, among all users, in the maintenance of services and preservation of collections for the benefit of all."

Yet Nicholson *(25)* says that ". . . the belief that industry should pay its way, as against the arguments that fees are counter to the democratic tradition and damaging to interlibrary cooperation and local public relations, appears to be gaining ground."

Budington *(26)* in speaking of the independent research library says that they "are dependent in part, at least, on continuing contributions from individuals and corporations, for certain segments of their programs. Charges are also levied for some services, notably that of photocopying; reimbursable services, in the case of the Crerar Library, form a significant portion of its total program."

Shank *(27)* proposes that "perhaps all libraries with attractive resources such as these [Engineering Society Library and the John Crerar Library] should be more mercenary in dealing with those who need exceptional services."

INTERLIBRARY LOANS. One area of interlibrary cooperation, namely, interlibrary loans, is receiving intensive study presently. Under a grant from the National Science Foundation, the Association of Research Libraries sponsored a study done by Westat, Inc. *(28)*, published in 1972. A number of significant findings emerged from this study, but perhaps these are the most critical:

1. The average lending cost per volume for large academic libraries was $2.12 for an unfilled loan request and $4.67 for a filled loan request.

2. Current trends indicate that by 1975 interlibrary borrowing by academic libraries may increase to about 2 million volumes per year and requests for loans processed in academic libraries may exceed 3 million volumes.

In order to follow up these findings, the National Science Foundation re-

cently awarded ARL $198,000 to study an improved interlibrary loan system for academic libraries. ARL, in turn, has made two separate awards, one of which was to Westat for "A Feasibility Study of an Improved Interlibrary Loan System for Academic Libraries Through the Determination of an Equitable Borrowing Fee System and the Development of a National Periodicals Resources Center." The National Commission on Libraries and Information Science recently awarded ARL a $15,000 grant for a feasibility study of centralized and of regionalized interlibrary loan centers.

Kaser *(10)* maintains that the present system works only in the broad middle range of libraries that borrow and lend at approximately the same rate. He states that the largest libraries subsidize the small ones to the fiscal detriment of the former. His article, on one hand a cogent argument for paid interlibrary loans, points out a number of questions which a fee-based system will raise.

It is clear from all of the above that at least some librarians seem to be moving in the direction of trying to establish fiscal arrangements in which cooperative ventures can operate. The impact of this is clear for all libraries. As pointed out earlier, MIT and Stanford have established fee-based library services for industry. In Indiana, the cooperative arrangement between the four state-supported universities mentioned previously is based on an assessment made in part on the lend-borrow ratio. OCLC, FAUL, and NELINET are all fee-structured networks which tie together the resources and services of the participating organizations.

What, then, might be the probable future of academic-special libraries cooperation? It should be assumed that there is now, and there will likely continue to exist into the future, a plurality of library agencies and libraries which must be taken into account in the design of any cooperative venture. Given the distinctive missions of the academic library and of the special library, and realizing that these are not likely to change, let us look at some prospects. It is necessary to break down the types of special libraries into three separate categories: those serving profit-making organizations (industry, business, finance, research, etc.); those serving nonprofit organizations (museums, foundations, societies and privately endowed collections such as the Huntington, Folger, etc.), and those serving governmental agencies, as well as the three national libraries—the Library of Congress, National Library of Medicine, and the National Agricultural Library.

PROFIT-MAKING ORGANIZATIONS. Most special libraries of profit-making organizations have little or nothing they can share with academic libraries. Moreover, the very nature of the firms which support these libraries in many cases prohibits the sharing of resources on the thesis that, since the firm's work is proprietary, any revelation of its interests, even through the literature collected, could be damaging to its economic life. The statement that these libraries "have little or nothing they can share" must not be construed as a denigration. Many have fine journal and monographic collections in their fields of specialization. Most of these, however, also exist in academic libraries. The very core of their specialized library collections—in-house reports, technical reports, translations, corporate reports, privately issued financial surveys, market studies, etc.—all of these in most instances are not to be found in academic libraries. Yet it is this core collection which is usually subject to no circulation outside the company.

The typical situation then is that academic collections are usually considered to be "open" and accessible to the public at large, at least for reading and photocopying, if not for borrowing. On the other hand, the libraries of profit-making organizations are generally considered to be "closed" and not accessible to the public. There are exceptions, of course, but they are relatively few. This duality of missions does not seem to be the basis for cooperation in which the sharing of resources and services are for a mutually beneficial end. It is surprising that more academic libraries have not instituted fee-based systems for use by industrial li-

braries. It hardly seems fair to ask the hard-pressed academic librarians to push their scanty resources even farther by rendering unilaterial service to organizations that can well afford to pay for them.

NONPROFIT ORGANIZATIONS. The situation with libraries of nonprofit organizations seems to be the reverse of what we have just been considering. Many of these libraries are "open" or admission may usually be readily gained by application. They have a long history of cooperation with their academic counterparts, especially those privately endowed which are sympathetic to scholarly research. These libraries have highly specialized collections—usually not reproducible even if funds could be found. Because of their uniqueness, scholars are drawn to the collections as supplements to other libraries, or indeed as the sole source of the needed information. Also because of their very uniqueness, these collections are usually self-sufficient and rarely need borrow material from other sources.

The issue then becomes a question of how academic libraries can continue to justify their free use of these collections. Some of these specialized libraries have instituted membership fees. As the increase in use of these libraries continues to grow, I anticipate that more use-fee structures will be announced. Since in most instances there seems to be a limited basis for resource sharing in these cases, such fiscal arrangements may be truly justified.

GOVERNMENTAL ORGANIZATIONS. Cooperation between governmental agency libraries or the national libraries and academic libraries has not been an issue, nor should it become one. These specialized collections should be available to academic libraries by the very nature of the foundation of the governmental system. The three national libraries have been leaders in establishing cooperative ventures. In addition, the creation of regional technical reports centers in universities by the Atomic Energy Commission and the National Aeronautics and Space Administration are programs close to the heart of cooperation. Perhaps in the strict sense of the word, this relationship cannot be described as cooperation, inasmuch as the material tends to flow from the governmental libraries to the academic ones. However, academic libraries have always been willing to reverse the flow whenever they have been called on. It would seem then that this arrangement is as it should be.

We have seen that some academic libraries have instituted fees for use by profit-making organizations, and some nonprofit organizational libraries have a membership fee for use by academic libraries. Another point to be kept in mind is that some academic libraries have given serious consideration to charging fees for interlibrary loans to help defray the cost of the transactions and that several studies are underway to determine how such fees could be charged. What do these considerations mean to the future of interlibrary cooperation between special and academic libraries?

There is an old adage which says that those who have, get—and those who don't, pay. Until very recently, scholarship seems to have escaped. Librarians agreed that, even if cooperation were not mutually beneficial, they had a responsibility to further knowledge no matter where it was pursued. We seem to be witnessing the passing of that era as we find business officers and treasurers poking around in hidden budgetary nooks, asking what we get for membership fees, or how much it costs to loan material. The real question then is, "Has interlibrary cooperation come down to a matter of dollars?"

Universities have become big businesses, and this is reflected in library budgets. The 1971-72 ARL academic library statistics show all of its 78 member academic libraries with budgets over $1,000,000. Toronto and Harvard had budgets of over $9,000,000 each, Yale and Stanford over $7,000,000, 3 libraries over $6,000,000 and 5 over $5,000,000. Of the 78 libraries the lowest budget was $1,200,000. However, general economic conditions indicate fiscal retrenchment

and many libraries are having to cut budgets. This climate is having its effect on cooperative ventures between libraries. Those libraries to whose mutual benefit resources and services can be shared are strengthening their cooperative programs. Other programs are being closely examined and reevaluated. We should not be optimistic about the outcome.

SUPPORT FOR COOPERATION. What, if anything, can be done to support interlibrary cooperation between special and academic libraries? As for the relationship between academic and profit-making organizational libraries, membership plans based on financial arrangements between the two units are probably what is needed. There is, however, one area which could be reexamined, namely a revival of some form of the State Technical Services Act. The original terms of this Act matched federal and state funds to support industry and business in solving technical, business and scientific problems. Federal money is no longer available. New legislation similar to this would provide on a national level an alternative to each library working out a separate program for this type of cooperation.

Cooperation with libraries of nonprofit organizations, especially privately endowed collections, offers an opportunity for support. These great private collections deserve fiscal support as national resources and should be freely available to scholars. It is inconceivable that academic libraries should attempt to duplicate these holdings, even if they were available. It may be possible that the National Foundation on the Arts and Humanities might be an appropriate body to work with to develop this suggestion.

COPYRIGHT ISSUE. One unresolved issue clouds the entire concept of cooperation: the right to photocopy and distribute copyrighted information. The case of Williams and Wilkins vs. United States is still in the courts. The copyright law revision, still in Congress, will also affect cooperation. Librarians have been urged to take a stand in favor of more liberalized copyright laws. Unless the right to photocopy is formalized by law, any atttempt to broaden and strengthen cooperative ventures will be undermined. Of all the issues currently demanding attention, undoubtedly this one is the most critical.

Conclusion

In conclusion, let me state that while indeed we are able to discover many programs which point to cooperative activities between academic and special libraries, most of them have been of limited scope. Those that have produced results have been based from the start on the reality that true cooperation means a mutual sharing with benefits for all parties. In recognition of this, it may be said that these successful programs have had a financial basis either in truly reciprocal service agreements or in soundly funded fiscal arrangements. Interlibrary cooperation is not dead. It is alive and the prognosis is good.

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The Challenge for Library Schools

A Student's View

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■ It is felt that the present curricula for special library education are somewhat inadequate. The curricula generally do not make provisions to orient new students within the field of library science, or to counsel and advise students prior to their making the inevitable decision regarding which area of specialization to pursue. Also, the curricula tend to be too theoretical in nature; they do not make provisions for students to acquire practical on-the-job experience prior to graduation. For these reasons, the author proposes to revise the present curricula to include an orientation seminar to assist the entering student in choosing a field of specialization, the expansion of the curriculum from 36 semester hours to 40 hours, and the replacement of the required comprehensive paper or thesis by an internship program similar to the student teaching requirement.

ALTHOUGH primarily concerned with the curriculum at the University of Texas at Austin, my concern does not end there. Special libraries is my area of specialization. Therefore, I am vitally concerned with the quality of education pertaining to special libraries. After examining and evaluating the present curriculum at the University of Texas at Austin for special library education and comparing it to other library school curricula, I find that they are less than adequate.

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The curricula generally do not make provisions to orient new students within the field of library science, or to counsel and advise students prior to their decisions regarding which area of specialization to pursue. Also, the curricula tend to be too theoretical in nature and do not make provisions for students to acquire practical, on-the-job experience before graduation. For these reasons, I propose to revise the present curricula to include:

1. An orientation seminar to assist the entering student in choosing a field of specialization and a procedure of only allowing full time students to begin graduate work in Library Science during the fall semester.

Figure 1. *Librarianship.*

Public	School	Academic	Special
Large city	Kindergarten	Small College	Art
			Music
Medium city	Elementary	Community	Theology
		College	Industrial
Small city	Middle School		Oil
		Large University	Motor
	Senior High		Company
		Undergraduate	Medical
		Library	Law
			Business
		Branch Library	Newspaper
			Government
			Many more

2. The expansion of the curriculum from thirty-six semester hours to forty hours.
3. The replacement of the required comprehensive paper or thesis by an internship program similar to the student teaching requirement for education majors.
4. Finally, I suggest that a new emphasis be placed on continuing education for special librarians.

Some of these proposed changes may already be incorporated into the special library curricula at other graduate schools. When taken together, these proposed changes would provide the student in special libraries with a firmer foundation from which to launch his career upon graduation and an opportunity to maintain a high level of professional competence during the course of his career.

When a student enters the graduate library school, he is confronted with an immediate decision, i.e., in what type of library does he want to work? Each of the four basic types of libraries offers certain advantages (see Figure 1). Are provisions made to counsel and advise entering students? Are some means provided to alleviate the difficulty of this decision? Unfortunately, this is not the case.

Therefore, an appropriate means of counseling new students entering library school should be implemented as part of the curriculum. Such a means would be a three- to five-day orientation seminar conducted by the library school professors and instructors, university librarians, and experienced library school students. The seminar would not require a large monetary expenditure on the part of the library school; it would, however, require some time and energy to be implemented.

The seminar would be conducted only at the beginning of the fall term, the time when all beginning full time library students would be required to begin their graduate work. This procedure is analogous to the entrance procedures at most major law schools, the Graduate School of Social Work at the University of Texas at Austin, and in other professional schools.

This policy may be construed to be restrictive or discriminatory in nature. I believe, however, that the advantages inherent in this policy, i.e., the alleviation of administrative difficulties in arranging schedules of instruction and the creation of curriculum cohesiveness among the graduate students, far outweigh the disadvantages, and thus the policy should be adopted.

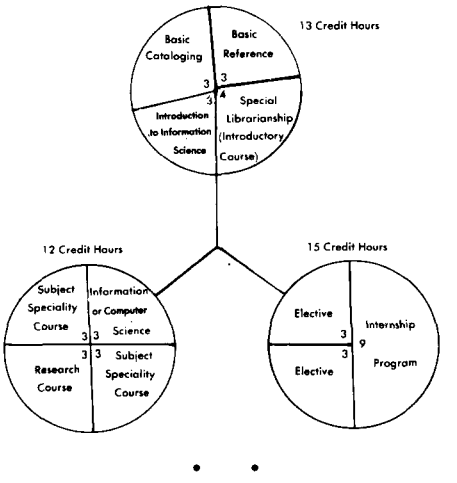
The orientation seminar may seem to be an elementary procedure, but for the inexperienced library school student, the counseling session would be a blessing. Certainly a three- to five-day seminar would not be the sole basis upon which a student would make a career decision; good advice, however, is helpful.

If the student chooses the special library route, there should be a designated curriculum for him to follow, i.e., each course has its designated position in the curriculum and deviation from this could cause a delay in graduation. Do the present curricula requirements provide the special libraries student with a comprehensive educational base? Does the special libraries graduate enter his profession with the practical knowledge and competence requisite for success? Once again, this is unfortunately not the case.

Presently, most master's degrees in Library Science are earned with an accumulation of thirty-six credit hours of course work plus writing a comprehensive paper or thesis. I propose a more in-depth and practical program should be considered for the special librarian which would include the expansion of the present curricula from thirty-six semester hours to forty hours and the deletion of the comprehensive paper or thesis to be replaced by an internship in a convenient special library.

A basic group of four courses would be taken by the first semester special library student (see Figure 2). The work would include basic courses in reference, cataloging, information science, and special librarianship. The first three courses account for three credit hours apiece. The course in special librarianship would be a four-hour basic orientation into the field, and would include three hours of class plus one two-hour discussion seminar each week. Actually, the course would be three courses in one, i.e., it would absorb the content of courses in administrative theories, special libraries, and introduction to special librarianship. The two-hour discussion seminar would include such topics as personnel, budgeting, acquisitions, library facilities, and library planning. A good method to use in handling these discussions would be the use of simulations and case studies similar to those given in *The Ann Davis Situation,* an exercise in administration, by Martha Jane Zachert. These simulations and case studies present the student with problems which are unique to the special library situation. These four basic courses would give the entering student a solid theoretical background, and represent the first thirteen credit hours toward his degree.

Figure 2.



Following the basic courses, the special library student must again make a decision. He must decide into what specialized subject field he will delve, and take courses to prepare himself for this specialty. In all, six semester hours of specialized subject course work would be required within my proposed curriculum. Certainly an individual cannot achieve a high degree of expertise in a specialized field, such as chemistry or petroleum engineering, simply by completing two courses in the field. The objective of this curriculum requirement, however, is to familiarize the student with some of the basic subject matter he can expect to encounter in that respective special library.

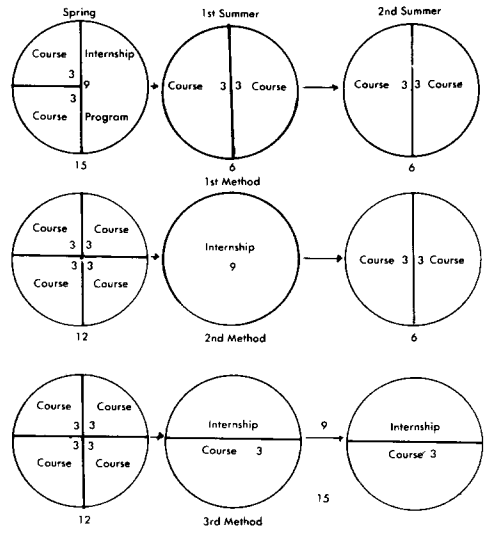
An advanced course in computer or information science plus a research course explaining the statistical aspects

of the special library would also be required in the curriculum. Since a special librarian is frequently the only professional in the library in which he works, elective courses in compiling bibliographies, indexing and abstracting, advanced cataloging or specialized reference would be required. From these, six credit hours of course work would be taken; these electives would give the student an opportunity to learn many necessary skills to be used by special librarians.

To complete the degree program, the special library student would be placed as an intern into one of the special branch libraries on campus or in the surrounding area, in a role analogous to the student teacher in the public schools. Maximum effort would be made to place each student in a special library within his specialized field. The library school would be responsible for the placement, and the internship period would require the student to work either twelve weeks for four hours per day or six weeks for eight hours per day. The course would account for nine credit hours in the degree program; the main objective of this internship program would be to give the student an opportunity to apply his theoretical knowledge from classroom courses to a practical on-the-job working experience. Satisfactory completion of the internship would be determined by an evaluation of the student's work by both his library school adviser and his on-the-job supervisor; the joint supervisor aspect is similar to the technique used in the student teaching programs. Upon completion of this internship, the special library student would submit an analysis of his on-the-job experience to both of his supervisors, and an evaluation of the special library curriculum to his library school adviser.

In the past, internship programs have failed due to the immense amount of administrative time that was required to implement them. By placing students in local special libraries rather than in distant ones, many of these difficulties may be alleviated. Also, library administrators often balk at accepting graduate library science students into their libraries, stating that a disproportionate amount of time must be spent orienting the students to the inner workings of their libraries. This is certainly a valid problem, but not an insurmountable one. Graduate library school students are not yet full professionals, but neither are they complete amateurs. By the time they begin the internship, the students will have a store of basic theoretical knowledge from which to draw; initially time must be spent orienting them to the special library in which they are placed, but later they could be counted on to provide valuable assistance in some of the daily library workload.

Figure 3. Three Alternative Methods (after basic 13 hours).



After the first semester of basic courses, the special libraries student would be required to take six credit hours in his specialized subject-matter field, three credit hours of computer or information science beyond the basic course, three credit hours of research, six credit hours of electives, and a nine credit hour internship program (see Figure 2).

The student would be given three alternative methods by which he may fulfill these requirements (see Figure 3). One way would be to take six hours of

course work and the nine credit hour internship program during the second, or spring, semester. This would mean that the student would be taking two courses and working four hours per day for twelve weeks on his internship program. The remaining twelve credit hours of the curriculum would be distributed evenly between the two summer sessions with the student taking two courses during each session. The second method would be for the student to take twelve credit hours of course work during the spring semester; the six week internship program, with the student working eight hours per day, would be taken during either the first or second summer session, with the final six credit hours of course work taken during the alternate summer session. The third method would be for the student to take twelve hours of course work during the spring semester, and spread the internship program over the entire twelve weeks of the two summer sessions with the student working four hours per day; the remaining six credit hours of course work would be completed by taking one three-hour course during each summer session.

This may seem to be a very rigorous program, because it would consist of forty credit hours, including a working internship, to be completed within a twelve month period. However, this curriculum change would provide a strong foundation on which to build a career in special librarianship, in that it contains a balance between the study of theories and the practical application of these theories.

Librarianship, especially in the special library, is a dynamic field. New ideas and trends are constantly being proffered, so it is difficult for the special librarian to remain up-to-date on the changes within the field. Is it not important that every special librarian make a concerted effort to remain highly informed about changes within his field? Of course the answer is "yes."

After two or three years of employment, the special librarian should be urged to return to a nearby university to take a refresher and/or advanced course in either general library science, information science, or his specialized subject field. This can only be a suggestion because no one can be forced into periodic continuance of his educational enlightenment, unless he is compelled to do so by employment contract requirements. Hopefully, special librarians will realize the importance of continuing education and will return at intervals to stay abreast of the changes within their field. Short courses, seminars, and discussion groups at professional meetings would also be excellent methods for keeping up with current ideas and trends.

There may be some doubts concerning the justification of my recommendations regarding revision of the special library education curriculum and the placement of special emphasis on continuing education for special librarians.

In the past, special librarianship at the University of Texas has not attracted as many students as have the other types of libraries. Students are more familiar with public, school, and academic situations. The orientation seminar that I propose would introduce the new students to special libraries and give them an indication of what they are and how they operate. The forty credit hour curriculum, with its internship program would be intellectually challenging and stimulating to those students who wish to become special librarians. With the field becoming steadily overcrowded, special libraries will certainly become more selective in choosing people for employment, only selecting those individuals who are the most enthusiastic about special libraries and who are the most academically qualified. This more rigorous curriculum would ensure that the special libraries student is highly qualified, both academically and technically, upon graduation, thus making it possible for him to effectively compete for a professional position. An effort on the part of the special librarian to periodically return to a university for refresher and/or advanced course work would help ensure continued professional competence throughout the duration of his career.

The aforementioned questions and proposed answers are by no means all inclusive. Many more questions may be asked, and certainly a multitude of different answers may be proffered. I firmly believe, however, that special librarianship requires a special curriculum, more comprehensive in nature than those presently offered, and one that continues past the day of graduation. I challenge all library school administrators and professors to examine the inadequacies of their curricula. Professional librarians require professional instructors and professional curricula. We have the former; let us obtain the latter.

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The Challenge for Library Schools
An Employment View

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■ In an effort to determine whether the library schools are adequately preparing students for employment, particularly in art and museum libraries, several employing librarians were contacted for their experiences. Their criticisms and suggestions for improvement are presented. It was generally felt that the curricula need to be revised to prepare students specifically for special and/or academic libraries.

FOR THE PAST several years whenever two or more employing librarians have met, the conversation has inevitably turned to the difficulty in hiring recent library school graduates who are equipped to handle the responsibilities of their positions. Library schools have more and more frequently become the target of the indignation felt by the librarians who must hire.

In an effort to get at the heart of the problem, a representative cross section of more than a dozen colleagues in the art field were contacted. These were persons who have had position openings within the past three years or have had recent first-hand experience with library school curricula. The response was 100%—certainly indicating a great interest in the problem. Only one respondent had no complaints whatsoever; all the others acknowledged definite problems. The respondents were optimistic, however, in the feeling that these problems are not insurmountable and that some graduate schools have in some cases already taken steps to solve them.

What Are the Problems?

Those most frequently expressed focused on the curricula and on the qualifications of the individual graduates, both educational and personal.

- The head of a large university art library felt that library schools have given up training catalogers, thus necessitating on-the-job training. Theory is taught without practical application. It is appalling that students can now apparently complete library school without knowing how to catalog and to classify a book. He bemoaned the fact that the pendulum seems to have swung away from teaching students in detail how to catalog to broader management questions.
- Training is too general; graduates are equipped for public or school libraries, but not academic.
- Another art librarian said that recent graduates have definite ideas about what is professional and what is not and wish only to do what *they* consider professional. Profes-

sionalism is a nice word, but definitely overworked. It does not fit in a small library where librarians must perform all levels of tasks. Recent graduates do not want to take direction; magically, that MLS has given them the ability to solve all problems—unassisted.

- Another individual said that graduates are not prepared for work when graduated; only prepared for rigorous apprenticeship before they can do productive work.
- A Midwesterner felt that automation was not adequately covered—pitfalls and restrictions of automation not even touched upon. A well-seasoned librarian stated, "I have not completely gotten over a sense of bewilderment when confronted with computer talk. The computer is becoming as fundamental a tool as the typewriter. I hope that recent library school graduates can hold their own with the non-librarian ADP people."
- Another interesting observation was that library school faculty have been away from the field too long or may never have worked in a library, so they have no conception of today's needs.
- Library schools no longer require candidates to have studied at least two foreign languages; yet French, German, and Italian are still necessary for art libraries. Special courses in art librarianship are totally lacking though as essential as in law or medicine.
- A Californian felt that non-print materials—slides and photographs and their unique problems—should be covered. Library school are not designing courses for special libraries/media centers or audiovisual libraries.
- This librarian also observed that critical examination of book selection and philosophy for art libraries should be part of the course—as should study of balancing collections, preservation, and circulation of rare art books.
- A fairly recent graduate felt that the curriculum was strongly oriented toward school or public libraries in spite of the fact that 42% of the graduating class of the particular graduate school mentioned accepted positions in academic libraries.
- A young university librarian who is also a PhD candidate said that university-employed librarians are requested to teach, but are exploited at ridiculously low salary levels to broaden the curriculum to a respectable level.
- The same person felt that there had been no change in many library school curricula since the 1940s or even earlier with the exception of information science courses.
- This PhD candidate also decried the lack of time in the curriculum for specialization, and the irrelevance of a significant amount of course work. Most students were bored, not adequately challenged, and spoon-fed to the point of regurgitating.
- A not unusual criticism was that library schools are not selective enough in acceptance of students. They were disappointed in the quality of the graduates. Good grades are not enough; an attractive personality and appearance, and willingness to work are also essential. There are still too many misfits accepted and graduated who then find it impossible to get or to hold a position.

What Solutions Have Been Suggested?

- ☐ Library schools should strike an optimum balance between theory and practice. Theories are best studied in library schools: concepts of library services and of attitudes of readers. Internships under the supervision of experienced and sympathetic professionals prior to graduation are recommended.
- ☐ More schools ought to add courses in nonprint materials, e.g., slide librarianship; films, etc.

- ☐ Students should be allowed to seek and attend specialized courses even outside the university.
- ☐ Adequate time and encouragement should be given for independent projects, e.g., research papers or bibliographies in special subject fields.
- ☐ Students who wish to become academic or special librarians should have at least two foreign languages.
- ☐ One-week practical workshops on art librarianship should be set up. The summer is an excellent time for such activities. UCLA offers the MA in art history and MLS simultaneously in a two-year program administered through the library school and the department of art history. More schools could follow this plan. Pratt, Queens, and SUNY/Buffalo offer special courses in the Fine Arts. In fact, SUNY/Buffalo held a two-day workshop on slide management and librarianship in the spring of 1973. Syracuse and Kent offer summer seminars; Syracuse also held a seminar in art and museum librarianship this past spring. Queens College in conjunction with the Metropolitan Museum of Art is planning to offer a course in art slide librarianship, Jan 1974.
- ☐ Courses on new media should be provided for working librarians at various times during the year. Perhaps credit could be granted toward a postgraduate degree or certificate.
- ☐ Automation should be in the required curriculum.
- ☐ Advanced degrees in specialized librarianship (including art) should be established.
- ☐ Schools should be more selective in choice of students.

To summarize, the general feeling among art librarians appears to be that the library schools are not meeting the challenge for today's libraries or tomorrow's libraries. While some schools have made attempts to improve the curricula in line with the needs of the profession, there is still room for a great deal of improvement. Particularly in the visual areas—slides, photographs, films—education for special libraries is still sadly lacking. The curricula need to be revised to prepare students specifically for special and/or academic libraries. Of approximately 35 library schools whose catalogs were studied, less than half listed a course in special libraries. Ten provided courses in audiovisual or nonbook materials including film; thirteen provided courses in literature of or bibliography of the humanities, social science, and the fine arts; only one had a course in pictorial research and photographs; three had Internship Programs (UCLA; Queens; SUNY/Albany). Many librarians would urge more schools to add internship and/or work study programs.

Library schools must be more selective in accepting students, especially when there are fewer jobs than candidates.

Special Libraries Association and the American Library Association could work together to seek improvement in the library schools for the mutual benefit of all special libraries and librarians, and of the library schools themselves. Together we can meet the challenge of today's and tomorrow's libraries.

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Computer Literature Searches in the Physical Sciences

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■ Selected computerized current awareness services and literature searches in the physical sciences are listed. The information given includes type of literature in each data base, time period covered, prices, and sources of availability.

MANY LIBRARIANS are aware of and favor use of custom searches of computer data bases for researchers as a means of improving reference services without unrealistic increases in staffing. However, physical scientists as a group are still at the threshold of awareness and use of computer searches for scientific literature.

The recently published *Physics in Perspective* mentions the existence of abstract–index information on computer tapes, and describes it as having "considerable *potential* utility" [italics added] (*1*, p.903). In projecting the future possibilities of computer-produced current-awareness services, the same work looks at one "alerting service"—that offered by the Institute for Scientific Information—and considers it "already quite useful," but states that "expense bars wide use of such systems" (*1*, p.913).

The authors suggest to science librarians that unrealized potential utility and the supposed high cost are not the only reasons for scant use of available services by scientists. A primary reason is that the services are not known to prospective users.

Librarians can make these services known and available. To assist them, representative lists of searches and suppliers, including both mission- and discipline-oriented files are offered. Subject information to help in the choice of a service is provided as well as the specific information which is needed to contact the supplier.

Information on coverage and price is clear-cut for searches available direct from source. However, careful comparisons should be made of vendor-supplied services. Varying charges are based on different search techniques and different coverages and should be verified at time of ordering. Price changes occur frequently. Depending on the requested subject, a vendor may perform searches through a number of data bases, some of which are also available direct from source. Some vendors work by contract for a period of time, rather than selling individual searches. Other vendors charge a stated minimum with a reduced rate of added cost for additional searching. Thus it should be understood that vendor charges shown on the tables must be approximate. However, they are indicators of a general price level in effect as of this writing (1973), and should make it possible to compare the probable cost-effectiveness of custom searching with that of manual searching by the researcher. We recommend consulting vendors directly before ordering searches to compare actual search strategies and price structures in order to make the most economical choice of services.

Information provided in the following tables should help librarians exercise their responsibility to make information services known and available to patrons. While evaluation may prove that some

Table 1. Selected Custom Literature Searches in the Physical Sciences (1973).

Search	Source of input; literature included	Time coverage	Available from	Cost
APTIC	Air Pollution Abstracts; 1100 domestic & foreign serials, patents, technical reports, preprints, technical society papers, conference proceedings	1967-	Air Pollution Technical Information Center	Free
CA Condensates	Chemical Abstracts; periodicals, patents, technical reports, conference proceedings, monographs, theses	July 1968-	Vendor	*$40-55/first volume
COMPENDEX	Engineering Index; 3500 journals, conference proceedings, transactions	1968-	Vendor	*$150/search
DATRIX	Xerox University Microfilms dissertations; "96 per cent of U.S. and Canadian dissertations"	Jan. 1938-	Xerox University Microfilms	$10/first 60
GEO-REF	Bibliography & Index of Geology; 2000 geology journals, theses, technical reports, maps, guidebooks	1967-	American Geological Institute Vendor	$37.50/first 50 *$100/vol.
NASA	International Aerospace Abstracts and Scientific & Technical Aerospace Reports; technical reports, periodicals, conference proceedings, patents, translations, government documents	1962-	NASA Vendor	Free to gov't. agencies *$90/search
NTISearch (GRA)	Government Reports Announcements; technical reports	1964-	National Technical Information Service Vendor	$50/search *$90/search
PANDEX	Periodical literature; 2400 scientific and technical journals	1969-	Vendor	*arrange
SIE	Budget documents for all federal funded research; some private research	1949-	Smithsonian Science Information Exchange	$50/search
SPIN	Over 60 physics journals, including all AIP journals	July 1970-	Vendor	*$70/vol.
Subject: Geology	Bibliography of North American Geology; periodicals, conference proceedings, technical reports, government documents, monographs, maps	1961-1968	Vendor	*$35/vol.
	Geophysical Abstracts; domestic and foreign journals, maps, conference proceedings, government documents	1966-1971	Vendor	*$35/vol.
Subject: Nuclear Science (NSA)	Nuclear Science Abstracts; periodicals, technical reports, conference proceedings	1962-	AEC Vendor	$55, gov't. agencies $100, others *arrange

* Vendor prices approximate.

Table 2. Selected Current Awareness Services in the Physical Sciences (1973).

NAME	FREQUENCY	COVERAGE	COST	AVAILABLE FROM
ASCA (Automatic Subject Citation Alert)	Weekly	More than 2400 scientific & technical journals	$115/yr. and up trial offer: $39 for 13 weeks	Institute for Scientific Information
CA Condensates	Weekly	Chemical Abstracts; periodicals, patents, technical reports, conference proceedings, monographs, theses	$7/week	Vendor
COMPENDEX	Monthly	Engineering Index; 3500 journals, conference proceedings, transactions	$10/month	Vendor
GEO-REF	Monthly	Bibliography & Index of Geology; 2000 geology journals, theses, technical reports, maps, guidebooks	$10/month	Vendor
NSA	Twice monthly	Nuclear Science Abstracts; periodicals, technical reports, conference proceedings	$10/month	Vendor
SPIN (Searchable Physics Information Notices)	Monthly	Over 60 physics journals, including all AIP journals	$10/month	Vendor

Table 3. Addresses for Services Available Direct from Source.

APTIC:
Air Pollution Technical Information Center
PO Box 12055
Research Triangle Park, N.C. 27711
919–549–8411 x 2141

ASCA:
Institute for Scientific Information
325 Chestnut Street
Philadelphia, Pa. 19106
215–923–3300

DATRIX:
Xerox University Microfilms
Datrix Order Dept.
300 N. Zeeb Road
Ann Arbor, Mich. 48106
313–761–4700

GEO-REF:
Director of Science Information
American Geological Institute
2201 M Street, N.W.
Washington, D.C. 20037
202–296–7950

NTISearch:
U.S. Dept. of Commerce
National Technical Information Service
Springfield, Va. 22151
703–321–8523

Nuclear Science (NSA):
U.S. Atomic Energy Commission
Science and Technology Branch
Technical Information Center
PO Box 62
Oak Ridge, Tenn. 37830
615–483–4426

SIE:
Smithsonian Science Information Exchange
1730 M Street, N.W.
Washington, D.C. 20036
202–381–5511

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information needs cannot be adequately met at acceptable costs, it is our belief that the services described are well worth trial expenditures to explore their value.

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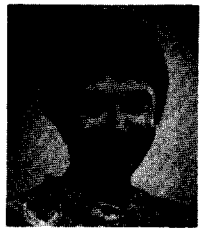
Received for review Apr 11, 1973. Revised manuscript accepted for publication Aug 13, 1973.

Table 4. Addresses of Vendors and Search Services Offered.

VENDOR	SPIN	COMPENDEX	PANDEX	GEO-REF	CA CONDENSATES	BIB. N. AM. GEOL.	GEOPHYSICAL ABSTR.	NASA	GRA	NSA
Aerospace Research Application Center Indiana Memorial Union Bloomington, Indiana 47401 812-337-7970	X	X			X	X		X	X	X
Center for Information Science Lehigh University Bethlehem, Pa. 18015 215-691-7000		X			X					
Georgia Information Dissemination Center Computer Center University of Georgia Athens, GA. 30601 404-542-3741	X	X		X	X	X	X			
Knowledge Availability Systems Center University of Pittsburgh Pittsburgh, Pa. 15213 412-621-6877	X	X			X	X		X	X	X
Lockheed Information Sciences 3251 Hanover St. Palo Alto, Ca. 94304 415-324-3311 405 Lexington Avenue New York, N.Y. 10017 212-697-7171 900 17th St., N.W. Washington, D.C. 20006 202-296-5700			X						X	X
New England Research Application Center University of Connecticut Mansfield Professional Park Storrs, Conn. 06268 203-429-6421	X	X			X	X		X	X	X
North Carolina Science & Technology Research Center Research Triangle Park PO Box 12235 North Carolina 27709 919-549-8291	X	X			X	X		X	X	X
Technology Application Center University of New Mexico Albuquerque, New Mexico 87106 505-277-4000	X	X			X	X		X	X	X
Western Research Application Center University of Southern California 809 W. 34th Street Los Angeles, Ca. 90007 213-746-6132	X	X			X	X		X	X	X



MURDOCK

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OPELLO

Rational Selection of Primary Journals for a Biomedical Research Library:

The Use of Secondary Journal Citations

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■ After considering several different methods, it was concluded that primary journals for coverage of a given field can be selected rationally on the basis of their citation frequencies in an appropriate secondary journal. Results obtained on the example used, "rehabilitation" as cited in *Index Medicus* during the years 1968–1971, were similar to those from five other fields, in that the number of journals required for each percent gain in literature coverage increased exponentially as the percentage of literature itself increased. As a consequence, library coverage of any particular field can be specified as a function of its budgeting commitment, so that the maximum percent coverage will be obtained for each dollar spent.

A SPECIAL LIBRARY must limit itself to the subjects of its authorized specialization or it will soon exceed its budget. It is not only economically impossible to subscribe to every relevant journal; it is also unnecessary and even counterproductive.

According to Bradford's Law *(1–3)* most of the articles published on any given subject will be contained in a relatively small population of journals. Garfield's Law *(4)* declares further that a special library needs only a relatively small collection of journals. Brookes *(3)* offered a formula based on Bradford's Law for calculating the "optimum P% library" of journals. Although Sandison *(5)* challenged it because of the great variations in papers-cited per papers-published among the journals—the Garfield "impact factor" *(6, 7)*—the concept itself remains valid even though the actual arithmetic may have to be modified. Goffman and Morris *(8)* showed that Bradford's Law holds true for the circulation of journals as well as for their publication.

Basile and Smith *(9)* were able to evolve a "90% pharmaceutical library" by continuously monitoring their collection so as to retain only that material which would satisfy 90% of their users' needs. The wisdom of this posture is betrayed in the tacit, but tactful, recognition that 100% satisfaction is attainable only in a closed information system—certainly not in the open situation of published literature.

Once this concept of library incompleteness is grasped by the users, or at least benignly tolerated, the discussion of library budgets can be brought to focus on the degree of completeness, in very practical terms: playing the odds.

The authorizers of the budget can then be provided with a percent-coverage versus dollars-cost relationship which enables them to fund the library coverage they want and, more importantly, relieve them of the inefficient burden of paying for a degree of coverage beyond that which is really required.

A more-or-less-standard, if not traditional, method of handling library incompleteness is the "select list" of books and journals *(10–16)*. The hitch always lurks in the selection process itself—the crucial decisions usually being made by the library users rather than by the librarians *(17)*.

The built-in bias of the users, based largely on their unawareness of library devices, can be overcome if the lists are compiled by librarians or, at least, by library-oriented scientists. An excellent example of a periodically updated "selected list" is the one published every two years by librarian Brandon *(10)*. The list by anatomist Inke *(11)* is an excellent example of a library-oriented scientist's contribution; based on a questionnaire sent to faculty members of 80 medical schools, it certainly represents an adequate sample.

The Core Concept

A major breakthrough in the list concept was achieved by Stearns and Ratcliff *(18, 19)* with their "core" medical library. On the basis of their health specialists, they developed a core of books and journals which should be physically isolated from the rest of the collection and not allowed to leave the library. This permanent core provides fast access to all areas of medicine at all times.

However, the core concept has far more utility as an overall library design model. The core designates the true quintessence of a given library, that is, the irreducible minimum; when anything else is removed, there is no longer a library but a mere collection of paper. A pharmaceutical research library must have certain books and journals no matter what line of products its company makes, no matter how large or how small it is, and regardless of the subject areas in which it operates. This basic ensemble is the core. Duplicate or even multiple copies of some standard references (e.g., *The Merck Index,* the *PDR*) may be needed but their proliferation only represents a response commensurate to the number of personnel or to geographic spread, and does not affect the core itself. For this reason alone, multiple copies should be budgeted differently. Dillehay *(17)* recommends budgeting the core on subject coverage and only the multiple copies on personnel. The pharmaceutical research library core will establish itself spontaneously because its criterion is so simple—absence of any core item halts operations, by definition. Lists are available *(20);* but the individual company's own operation is a better determiner of the core.

Journal Selection

The core, however, is not of primary interest here. Rather, the selection of journals for satellite areas of specialization is the real problem. Each specialist wants as many journals in his field as he can obtain. Fortunately, and usually unknown to the specialist, most of the articles on any given subject appear in a relatively small number of journals (Bradford's Law, *2*). Therefore, by obtaining "all" articles in a particular field and ranking the journals containing these articles in order of their frequencies of occurrence, it is possible to identify the most-used and the least-used journals. Expressing the frequencies in terms of the percent of all papers provides a quantitative measure of coverage for a particular field. For example, if 100 articles in X-ology appeared in 32 journals but 60 of them appeared in 8 journals, 60% coverage of X-ology can be obtained by getting only 8 (25%) of the journals. It is possible, therefore, to correlate percent coverage with journal costs. Disregarding, for the moment, the relative importance of the individual articles, the only problem remaining is obtaining the collection of all articles in a field.

Garfield *(21, 22)* uses citations of papers by subsequent papers to determine use. He determined the most-used journals in biochemistry by ranking the journals most frequently cited in *Biochemistry,* and in chemistry by citations in the *Journal of the American Chemical Society (23).*

While Garfield's approach is undoubtedly the best, it is not easily performed without his data base. The typical librarian needs an easier, faster technique to determine, or at least estimate, the frequencies of publication in journals carrying papers in any given field.

Instead of Garfield's use of citation by papers, I propose the use of citations by secondary journals. This is not just a modification of Garfield's method but is actually a totally different measurement and would not even be mentioned with his except that both have a common use: primary journal evaluation. It must be remembered that when an author cites a paper he is transmitting information on the subject. When a secondary journal cites an article, it is merely transmitting data about documents. The point remains that these data about documents can be used for the evaluation of journals.

Materials and Methods

When confronted with selecting journals for a particular field, the secondary journal which best covers that field should be obtained: for a medical subject, *Index Medicus* or *Excerpta Medica;* for a chemical subject, *Chemical Abstracts* or *Current Abstracts in Chemistry and Index Chemicus,* etc. For purposes of illustration here, *Index Medicus* will be used. Only four years need be covered for most medical subjects. Slower-moving fields, such as animal taxonomy, might require a much longer time span.

The appropriate subject heading is located and every journal title cited is written on a separate file card. Every time the journal is cited, a mark is made on its card. Upon completion of the survey the cards are tallied and ranked according to the total frequencies (Table 1). A synopsis chart is constructed (Table 2) and the cumulative percent of total citations is plotted on two-cycle semilogarithmic paper as a function of the cumulative number of journals (Figure 1). The subject used here for illustrative purposes is "rehabilitation" as cited in *Index Medicus* during the years 1968–1971.

Table 1. Frequencies with which journals were cited by Index Medicus for "rehabilitation," 1968–1971.

Times Cited	Journal
62	Arch Phys Med Rehabil
62	J Rehabil
28	Rehab Rec
26	Rehabil Lit
20	Am Correct Ther J
16	Beitr Orthop Traumatol
10	Rheumatol Phys Med
9	Minerva Med
8	J Amer Geriat Soc
	Lakartidningen
	Maryland Med J
	Nurs Times
7	J R Coll Gen Pract
	Praxis
6	Hospitals
	Nurs Outlook
	Phys Ther
5	Dtsch Med J
	Ugeskr Laeger
	Wien Med Wochenschr
	Z Gesamte Hyg
4	Am J Occup Ther
	Geriatrics
	Hosp Community Psychiatry
	J Chronic Dis
	South Med J
3	Amer J Nurs
	Amer J Phys Med
	Cah Coll Med Hop Paris
	Clin Orthop
	Clin Ter
	Deutsch Gesundl
	Fysiat Reum Vestn
	Geront Clin
	Internist
	Maroc Med
	Orizz Ortop Odierna Riab
	Physiotherapy
	Postgrad Med
	Psychol Rep
	Von Kurort Fizioter

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Results

From Table 2 and Figure 1 it is evident that 22% of the citations occurred

Table 2. Synopsis chart on journals cited by Index Medicus for "rehabilitation," 1968–1971.

Times Cited	Number of Journals	Cumulative Number of Journals	Percent of Total Journals	Cumulative Percent of Total Journals	Number of Citations (Times Cited × Number of Journals)	Cumulative Number of Citations	Percent of Total Citations	Cumulative Percent of Total Citations
62	1	1	0.5	0.5	62	62	10.9	10.9
62	1	2	0.5	1.0	62	124	10.9	21.8
28	1	3	0.5	1.5	28	152	4.9	26.7
26	1	4	0.5	2.0	26	178	4.6	31.3
20	1	5	0.5	2.5	20	198	3.5	34.8
16	1	6	0.5	3.0	16	214	2.8	37.6
10	1	7	0.5	3.5	10	224	1.8	39.4
9	1	8	0.5	4.0	9	233	1.6	41.0
8	4	12	2.1	6.1	32	265	5.6	46.6
7	2	14	1.0	7.1	14	279	2.5	49.1
6	3	17	1.6	8.7	18	297	3.2	52.3
5	4	21	2.1	10.8	20	317	3.5	55.8
4	5	26	2.6	13.4	20	337	3.5	59.3
3	15	41	7.8	21.2	45	382	7.9	67.2
2	34	75	17.6	38.8	68	450	12.0	79.2
1	118	193	61.1	99.9	118	568	20.8	100.0

Table 3. Number of journals covering various percentages of the literature of several different fields. Increments for each percent rise appear in parentheses.

Field, In Index Medicus Subject Headings	Years Covered	Total Number of Citations	Number of Journals Covering at Least __% of the Literature						
			10%	20%	30%	40%	50%	75%	100%
Antidepressive Agents and Psychopharmacology	4	926	3	10	16	28	55	153	295
(Increment)			(3)	(7)	(6)	(12)	(27)	(98)	(142)
Antiseptics and Disinfectants	4	827	5	12	21	39	88	157	335
(Increment)			(5)	(7)	(9)	(18)	(49)	(69)	(178)
Burns, Drug Therapy and Burns, Microbiology	4	242	2	8	17	17	27	121	121
(Increment)			(2)	(6)	(9)	(0)	(10)	(94)	(0)
Muscle Relaxants, Central	3	156	3	11	11	30	30	99	99
(Increment)			(3)	(8)	(0)	(19)	(0)	(69)	(0)
Rehabilitation	4	568	1	2	4	8	17	75	193
(Increment)			(1)	(1)	(2)	(4)	(9)	(58)	(118)
Urinary Tract Infections; Urologic Diseases, and Urology	1	588	3	10	17	31	42	104	240
(Increment)			(3)	(7)	(7)	(14)	(11)	(62)	(136)

in 2 of the journals, 35% in 5 journals, 52% in 17 journals, 67% in 41 journals, and 79% in 75 journals; it required 193 journals to provide 100% of the citations. As the percent of the citations increases, the yield, in terms of percent-citations per journal-added, decreases; that is, more subscription money pays for fewer citations. Assuming each journal subscription costs $10.00 per year, 22% of the literature would cost $20.00; 35% would cost $50.00. Obtaining over 52% of the literature would cost $36.67, on the average, for each 1% of literature gained. Below 52% it only costs $3.27, on the average, for each 1% gained—a 10 fold difference.

For comparison purposes, the results obtained for several different fields are presented in Table 3. The fields are basically similar in that the number of journals required for each percent gain

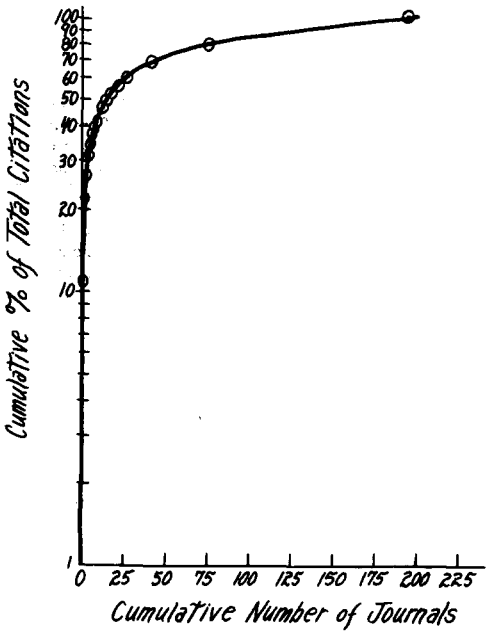

Figure 1. Percent of total citations as a function of the number of journals cited by Index Medicus for "rehabilitation," 1968–1971.

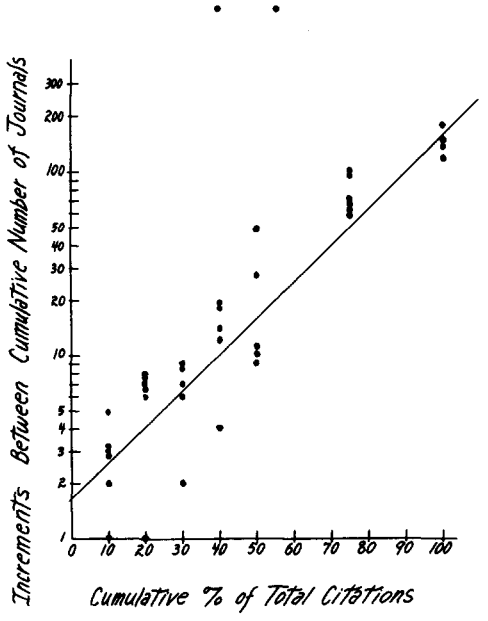

Figure 2. Incremental increase in number of journals required as a function of the percent of the total citations covered. Combined data for six different subject fields.

in literature coverage increases geometrically as the percentage of literature itself increases; this is graphically demonstrated in Figure 2. As more of the literature is covered, the cost of each increment will be higher than the cost of the previous one.

Discussion

Objections to this type of approach usually stress that not all papers contain the same information value. This argument is true, but irrelevant; it is analogous to confronting a highway traffic engineer with the true fact that some automobiles are sedans and some are station wagons. The traffic engineer is concerned with the flow of automobiles; the librarian is concerned with the flow of publications. Furthermore, when information handlers do deal too intimately with the contents of documents, the Heisenberg Uncertainty Principle applies to information processing *(24)*.

The relationship of the budget to the selection of library materials is often perverted into a counterproductive stance. Tudor's incisive paper *(25)* lays bare the standard mechanisms employed in the special library's budget. I would carry his PPBS (Planning-Programming-Budgeting Systems) much further. The budget testifies to the authorizing body's commitment to a given endeavor. As such, it must be stated beforehand; that is, before a selection of journals for a particular field is made, the dollar value of that field must be declared. After this, the librarian's job is simply getting the most benefit per dollar.

Conclusions

Primary journals for coverage of a given field can be selected rationally on the basis of their citation frequency in an appropriate secondary journal.

Library coverage of any particular field can be specified as a function of its budgeting commitment—with the assurance that the maximum yield, in terms of percent coverage, will be obtained for each dollar spent.

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Commentary on
NTIS Document Costs

THE RAPIDLY RISING COST of documents available through the National Technical Information Service (NTIS) has presented special libraries which deal extensively in the unclassified report literature with an especially painful Hobson's choice: curtail accessions, or curtail other services. Neither alternative is viable: the first denies the library's client community access to current technology, and the second is largely illusory because other costs are rising, too, and hidden pockets of crisis money simply no longer exist. In an effort to address constructively one aspect of this very general and intractable problem, I wrote to Senator Claiborne Pell with regard to the rising cost of NTIS documents and services. Senator Pell was selected for two reasons: because he is the Junior Senator from Rhode Island, where I live and work; and because he has, for years, been an ombudsman in the Congress for libraries and librarians. A portion of that correspondence follows:

12 June 1973

Hon. Claiborne Pell
325 Old Senate Office Building
Washington, D.C. 20510

Dear Senator Pell,

In a conversation this morning with Mr. Bill Young of your office, I expressed concern regarding the pricing policy adopted by the National Technical Information Service (NTIS) for its documents and other services. He suggested that I provide some specifics for your review, so that you may determine if there is a substantive issue here which would warrant further investigation and possible action on your part. I have therefore annotated and enclosed several documents which illustrate this problem from the user's point of view.

In essence, the issue is this:

If my parent organization is to prosper, I must provide an aggressive technical information service, and actively mediate between our scientists and the written record (which is what a technical librarian does). But the high cost of obtaining Government-sponsored research literature, even for review, effectively makes much of this valuable material inaccessible. These costs are still rising. Microfiche documents, for example, will increase in price this July 1 from $.95 each to $1.45 each, a rise of 52%. Paper copy costs are going up an unspecified amount this summer. The six-volume Cumulative Index to the Government Reports Abstracts has jumped in price from $65 per set in 1972 to $250 per set in 1973, an extraordinary rise of 284%. Xerographic copies of 17-page reports cost $3 each.

Clearly, this selectively supports large, well-financed organizations with substantial library budgets, and works to the detriment of small businesses which, increasingly, are deprived of access to current technology. The whole rationale behind Federally sponsored technology transfer is thereby defeated. The matter, therefore, is one of national, rather than merely of corporate, concern.

There are, of course, many factors which limit the accessibility of the technical literature. Documents may be physically inaccessible, they may be psychically inaccessible (i.e., the holding organization is so difficult to deal with that the yield is not worth the effort), and they may be classified. Some of these constraints are unfortunate, and accidental; some result from perversity or caprice. Others are quite reasonable in the context of the times. However, I believe that the primary responsibility of the Federal Government is always to act, within these irreducible constraints, to maximize the flow of technical information, and to promote and support the transfer of technology. It must provide, in this and other contexts, the national leadership which is its proper role and which cannot reasonably or practically be derived from the states or from the private sector.

It follows, therefore, that certain administrative points of view which are entirely appropriate to corporations are wholly inappropriate to elements of the Federal Government.

I disagree with the concept that NTIS must operate as a zero-subsidy, pay-as-you-go, enterprise. NTIS is not a new commercial organization funded with venture capital and allotted a fixed period in which to show a return on investment; it is a primary Federal data bank which

is central to the continued health of the national technical community. Whether or not it operates in the black is insignificant in the context of its importance to the country. I suspect that my view is shared by almost all technical and university librarians.

In a conversation with Mr. James Jennings of NTIS, he said, to my astonishment, that since his organization was operating on a vanishingly small subsidy, they now had to create and distribute advertising brochures and flyers designed to "sell NTIS services and show how good we are" (not a verbatim quote). Therefore part of the increased cost of documents and services is attributable to this substantial, and growing, promotional expense. Of course, he said, present NTIS users must bear the cost of this activity. One is led to infer, with good reason, that if NTIS fails to operate in the black the future of the organization is in significant jeopardy. In the academic community, one hears the expression "publish or perish"; in the current Administration the cant phrase appears to be "profit or perish." But who is worrying about the national interest?

Senator Pell forwarded my correspondence to the Department of Commerce for their review and comments. I have received two letters in response. The first from Dr. Betsy Ancker-Johnson, Assistant Secretary of Commerce for Science and Technology, addresses the general question of NTIS pricing policy. Although it appears over Dr. Ancker-Johnson's signature, it was drafted by Dean Smith of NTIS. The second, from A. W. Alexander, Acting Director, Operations, NTIS, purports to answer certain specific questions which were raised in my letter to Senator Pell. These responses are only partially successful. Several of their comments appear to be either technically incorrect or in substantive conflict with each other.

Questioning NTIS Pricing Policy

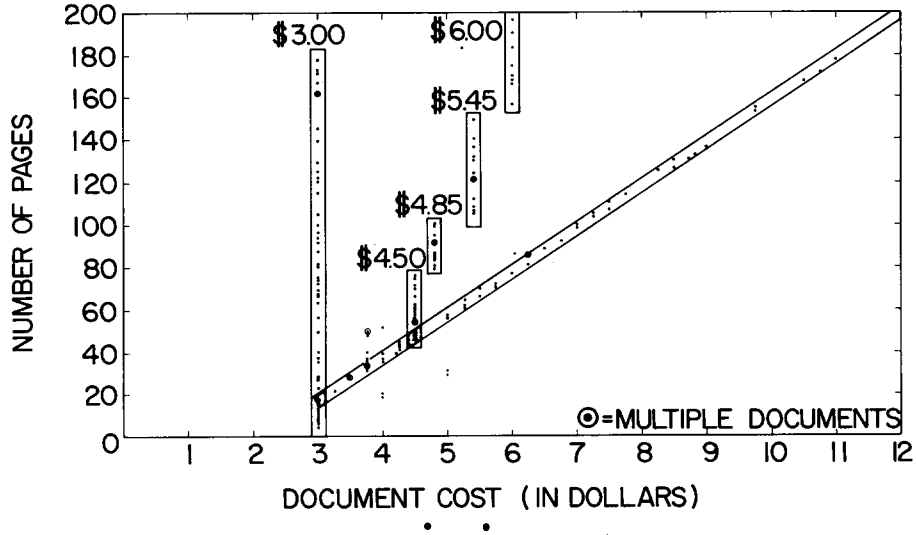
I believe that it would be appropriate to review the current NTIS pricing policy in terms of its rationale, its legality, and the possibility of mitigating or reversing the demonstrated pattern of repeated cost increases. The following questions suggest themselves as reasonable points of departure:

1. Specifically, what is the NTIS pricing policy? It appears to be clear that NTIS operates under one or more statutory constraints which require that it recover costs. It is not clear, however, how NTIS has elected to meet these requirements, or how often and at what level these operating decisions are reviewed. Does the enabling legislation intend that NTIS recover all costs *at all costs,* regardless of the consequences? Or did the legislators expect that NTIS would attempt to recover costs within the context of service to the nation?

Dr. Ancker-Johnson stated, in her letter, that "prices for NTIS products and services are set to allow the recovery of costs for information development, production, and distribution." Except for NTIS-generated searches, however, there should be no costs for information development. Most NTIS documents are contractor-furnished reports. The initial copies are not even reproduced by NTIS. She went on to say that "all prices, as well as the agency's expenses on which its prices are based, are subject to regular review by the Office of Management and Budget." However, Mr. Alexander claimed that "the original printing, pricing . . . (is) done by the agency that prepared the document." These statements appear to be inherently contradictory. Also, the clear implication is that a contractor or laboratory in the private sector, having prepared a report as part of the Federally funded project, can, and does, tell an element of the Department of Commerce how much to charge for copies of that report. One wonders, also, precisely what role of OMB is in this connection. Does it play Devil's Advocate, and act as the customer's man, or is it content merely to ascertain that NTIS is allocating every possible operating expense to its estimate of cost, and that the maximum dollar return is being realized. At the risk of appearing to be cynical, I would doubt that OMB, by charter or by philosophy, would attempt to tread the middle ground and serve both masters.

A preliminary analysis of the cost of 160 documents announced during June and July by NTIS shows three entirely distinct pricing policies (see Figure 1). I plotted cost versus number of pages for documents of up to 200 pages, and costs to $12.00. The first

Figure 1. Cost vs. Number of Pages of 160 NTIS documents



policy showed that any document of four through 178 pages could be purchased for a flat fee of $3.00. The second policy showed a stepped, or staircase, approach. Documents between 50 and 75 pages cost $4.50; between 75 and 100 pages, $4.85; between 100 and 150 pages, $5.45; and between 150 and 200 pages (the limit of my inquiry), $6.00. The third, and possibly most destructive, approach shows a straight line running from a $3.00 minimum charge for documents of approximately 15 pages, to a $12.00 charge for 200-page reports. The flat slope of this line is significant; a small increase in page count results in a large increase in cost. Note, also, that many NTIS documents are reduced 50%, and therefore have two original pages on one sheet. NTIS pricing reflects original-document page count, not the number of sheets of reproduced copy sent to subscribers.

One can thus purchase a 175-page document for $3.00, for $6.00, or for $10.80, depending upon which pricing schedule was being used when the document cost was established. And all these variant prices appear in the same issue of GRA.

Are these pricing schedules reviewed by OMB and/or by the highest levels in Commerce, to ensure that they are reasonable and that they are consistent with both the letter and the intent of NTIS' enabling legislation, or are they applied irregularly and arbitrarily by NTIS administrators who struggle (understandably) to strike a balance between public service and personal survival?

2. How was the cost of the GRA Annual Index established? Mr. Alexander's letter stated that "the public sale price of the 1972 Annual Index ($250) reflects the low number of actual sales (slightly over 500)." He went on to say: "As you are probably aware, the cost of printing is always dependent upon the number of copies printed."

I am aware. But the interesting aspect of Mr. Alexander's explanation is what is left unsaid. For example, Mr. Alexander is probably aware that there are thousands of Federal, military, USIA, state, university, public and corporate libraries in this country and abroad. There are 1,100 Depository Libraries alone. Is Mr. Alexander implying that in all the world there shall be extant only 500 sets of the GRA Annual Index, distributed sparingly among these libraries? The mind, as Mr. Wodehouse says, boggles. Or does Mr. Alexander's reference to "actual sales" mean, in translation, "thousands of sets will be printed, but only 500 will be paid for."

Please note that 500 × $250 = $125,000. One-eighth of a million dollars. That is hardly a trivial printer's bill. If these indices cost $50 per set to produce, including an allocation for computer composition (a nominal figure, because the format appears to have been fairly well established), the "ac-

tual" NTIS recovered costs would pay for the production of 2,500 complete sets. If the cost per set is $75, NTIS would recover sufficient funds to cover the production of 1,666 sets.

In short, who is recovering whose costs?

3. As an extension of item (2), above, we should ask the question: Do Federal agencies ride free with regard to any portion of NTIS products and services? Do other elements of the Executive Branch? Does the Small Business Administration? Does the Congress? If so, is this permitted by the enabling legislation? If the enabling legislation is silent, and if the cost of gratuitous Federal use of NTIS is borne by the private sector, I would urge that this matter be considered to be of the highest priority in any SLA-supported action.

Dr. Ancker-Johnson said, in her letter, that "NTIS prices have not inhibited small business use of its information collection (because) the largest user of its computer searches is the Small Business Administration." I submit, however, that there is a good deal more difference between the Small Business Administration and small businesses than just the initial caps.

4. Are the NTIS price increases legal under the wage-price guidelines which were in effect at the time of their announcement? Although Commerce has acknowledged that they are unable to implement the proposed July increase in the cost of microfiche, they have not mentioned the (apparently) illegal 284% increase in the cost of the GRA Annual Indices.

To keep this in perspective, I believe it important that we render unto the legislators what is legislative, and unto NTIS what is purely administrative. It would seem futile, and unfair, to berate the NTIS administrative hierarchy for failure to conceive and implement a broad policy of public service. That responsibility rests with Dr. Ancker-Johnson and with the Congress. What is appropriate, however, and should be asked, is: what are the terms of the enabling legislation; how are these legislative requirements met; how is pricing policy structured and implemented; who reviews the policies and oversees the operations; how are costs defined and assessed; do the various Federal agencies and the Congress pay for NTIS products and services, or are the costs borne by the private sector; and, finally, are the announced price increases legal?

Action Is Needed

When the Congress reconvenes, the immensely important matter of the role of NTIS in the context of the national interest should be re-examined at an appropriate legislative level. This kind of analysis will not happen automatically merely because it is reasonable, or constructive, or just. The impetus must come from the community of special librarians, as expressed through the SLA.

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Costs Go Up from GPO Check Your Market Basket

To the current cacophony of complaints about the Government Printing Office add one more discordant note: the rising cost of doing business with GPO. The CoK (Cost of Knowing) figure from GPO has risen at almost double the rate of the commercial publishers in the last two years and has a 50% greater increase for the last four. These figures were derived from preparing a representative Library Market Basket subscription list for GPO and costing it out for 1969, 1971, and 1973 rates (Table 1). Then, to be per-

Table 1. Cost of Knowing Index—*Government Printing Office*

Representative periodicals	1969	1971	1973	CoK
Airman's Inf. Manual (all parts)	$ 24.50	$ 29.50	$ 60.50	
ASPR	54.00	54.00	64.00	
CAST (now **Topical Announcements**)	5.00/subj	5.00/	7.25/	
Code of Federal Regulations	150.00	175.00	200.00	
Commerce Business Daily	15.00	25.00	40.00	
DOD Index Specs & Standards	20.00	20.00	36.00	
DOD Telephone Directory	4.50	10.00	18.00	
JAG Journal	1.25	1.25	2.00	
Library Congress Catalog	201.50	325.00	470.00	
Monthly Catalog	6.00	7.00	12.50	
New Serial Titles (class list)	25.00	25.00	25.00	
New Serial Titles (union list)	115.00	115.00	160.00	
Official Gazette	78.00	89.00	89.00	
Radiological Data (now **Radiation**)	6.00	6.00	10.50	
Technical News Bulletin (NBS)	3.00	3.00	6.50	
USGRDR (now GRA)	30.00	30.00	52.50	
USGRDR Index (now GRI)	22.00	22.00	57.50	
Total Cost	**$760.75**	**$941.75**	**$1311.25**	172 (69–73)
				125 (66–71)
				139 (71–73)

Table 2. Cost of Knowing Index—Commercial Market

Representative subscriptions	1969	1971	1973	CoK
Acoustical Society J.	$ 27.00	$ 45.00	$ 45.00	
Amer. Book Pub. Record	15.50	16.75	19.00	
Annals of Math. Statistics	30.00	30.00	30.00	
Aviation Week	12.00	15.00	20.00	
Bell System Tech. J.	7.00	10.00	10.00	
Business Week	10.00	12.00	12.95	
Chem. & Eng. News	6.00	8.00	8.00	
Electronic News	3.00	3.00	5.00	
Fortune	14.00	16.00	16.00	
Harvard Business Review	12.00	12.00	12.00	
IEEE Trans. (all)	380.00	520.00	600.00	
Library Journal	12.00	12.00	15.00	
National Geographic	9.00	9.00	9.00	
Official Airline Guide	45.00	45.00	45.00	
Physical Review	100.00	180.00	258.00	
Research Management	10.00	14.00	14.00	
Scientific American	8.00	10.00	10.00	
Space Business Daily	200.00	230.00	250.00	
US News & World Report	12.00	12.00	12.00	
Total Cost	**$922.50**	**$1197.75**	**$1390.95**	150 (69–73)
				130 (69–71)
				116 (71–73)

fectly fair to our favorite whipping boy, a similar basket for commercial subscriptions was compiled (Table 2), using one-year terms and no special deals.

It was interesting to note that, while from 1969 to 1971 the rate of increase was greater for the commercial sector (30% against 25% for GPO), from 1971 to 1973 costs for government subscriptions shot up 39% while the commercial list increased at a slower rate of 16%. It now costs 72% more money to subscribe to that 1969 list from GPO against 50% more for that commercial list.

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A View of the International Environmental Information Problem

(Report on the United Nations Environment Programme Governing Council and on the World Assembly of Non-Government Organizations Concerned with the Global Environment, June 5–26, 1973)

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■ As at Stockholm, the need for environmental information was constantly stressed and ways of exchanging information discussed. A demonstration of a pilot project of the International Referral Service conducted for delegates is described and next steps in its development indicated. A discussion of the role of information and education in the United Nations Environment Programme and the part SLA can play in international, national and local programmes are presented.

HEARING THE WORD "Geneva", no feelings of a mystic "Only-One-Earth" unity will haunt the memory of environmentalists, as by the magic of "Stockholm." The first meeting of the Governing Council of the United Nations Environment Programme (UNEP) in Geneva was unavoidably dominated by assessment of hard realities and organizational adjustments in the interpretation of the global dream first brought nearer to our grasp a year ago.

The concurrent World Assembly of Non-Governmental Organizations (NGOs) Concerned with the Global Environment was almost suffocated by procedural groping, but at the end produced an on-going liaison committee and a coherent declaration adopted by consensus. (See Press Release UNEP/16.) The NGO Assembly was convened "to achieve a focus of co-operation among NGOs and with UNEP on action programmes, education and information concerning the global environment" *(1)*. Strangely enough, SLA was the only directly information-oriented organization in attendance. The Assembly met during the weekend suspension of plenary meetings in the middle of the two-week session of the Governing Council. This arrangement was to avoid conflict with the needs of the Council or National Delegations for the use of space, translation and microphone services, and to leave NGOs free for their role as observers of the plenary sessions. It unfortunately also severely curtailed the time and opportunity of NGO representatives for discussion of substantive matters in their own Assembly and for group meetings much desired for exchange of ideas, impressions and case experiences. This was a deprivation and disappointment keenly felt by participants who had made especially long journeys from distant countries.

All meetings, both of the Council and the NGO Assembly, were held in the new section of the Palais des Nations, using halls and office space rushed to completion for the occasion. The NGOs addressed themselves diligently to the questions of further development and coordination of their role in improving the state of the world environment as collaborators, friends and critics of the UNEP. Many representatives were present for the full two weeks of the Governing Council session. The three most extensive NGO Assembly sessions were spontaneously organized to consider the subjects of economic and social aspects of development and environment, of human settlements (especially in relation to the proposed UN exposition and conference to be held in Vancouver in 1976) and the proposed International Referral Service of the UNEP.

The Background

The range of NGO involvement originated in the 109 points of the "Recommendations for Action" of the UN Conference on the

Human Environment in Stockholm. In their report, SLA delegates Anglemyer and Ottersen focused on the international role of information in environmental problem-solving *(2)*. In a state-of-the-art paper and recent report, Mary Anglemyer dealt with further implications of the Stockholm conference, and urged the library profession to take the leadership in recognizing and improving the environmental information process *(3)*. In the year between Stockholm and Geneva a series of developments in international organization emphasized the relevance of these comments.

During this time hardly any national or international body—especially in the industrialized countries—had not put the environment on its agenda. New, resource-oriented information management networks emerged into varying stages of proposal, drafting and development *(4)*. In addition to information pertaining to environmental protection, management and planning, messages about the *environmental information process itself* grew spectacularly in density. Each of the disciplines and professions began taking a long, hard look at the process, and discovered that environmental information not only represents economic and political currency, but it also reflects the relative place of that particular profession or discipline in a problem-focused community or society. In a succession of conferences, workshops and symposia the awareness of the new problem surfaced: A solution had to be sought for eventually interlinking all these phenomena, from the "invisible colleges" of dedicated individuals to the massive networks and subsystems of earth resources information.

In the United States, the National Environmental Information Symposium sponsored by the U.S. Environmental Protection Agency (Sep 24–27, 1972) took a considerable step in this direction. More than 1,700 participants from the United States and about 50 international observers attended this "first general convocation of the environmental information community" *(5)*. With its pattern of user group panels responding to speakers' sessions, the Symposium attempted and was successful in a new approach.

How could such groups identify similar efforts in other countries, and join forces with them? According to the recent words of the Hon. Maurice F. Strong, Executive Director of the UNEP: "The varying needs of the national information media should be met through the supply of adequate basic information for their work" *(6)*.

In an effort to find solutions to the growing problems of international integration of information sources, several worldwide studies have been conducted. Two examples are UNISIST and UNEP's International Referral Service (IRS). The scope of this report does not permit a discussion of UNISIST, the worldwide scientific information system jointly planned by ICSU and UNESCO, and readers are referred to the proposed system's newsletter *(7)*. The second example, UNEP, and its proposed service will be discussed in some detail.

International Government and the Role of NGOs

The United Nations Environment Programme (UNEP) was established by the General Assembly Dec 15, 1972. Resolution 2997 (XXVII) provided for a policy-making Governing Council of 58 member states (16 seats for Africa, 3 for Asia; 6 for Eastern Europe; 10 for Latin America, and 13 for Western Europe and other states) *(8)*. The Governing Council is responsible for the coordination of the various environmental programs in the UN system (e.g. FAO's Soil Data Processing System, UNESCO's Man and the Biosphere, WHO's International Reference Centre for Waste Disposal, etc.). Coordination of these programs with emerging ones is made difficult by their disparate characteristics, levels and forms of operation. Some are monitoring systems, others registers of research or full-scale data banks.

The *Environment Secretariat,* headed by Maurice F. Strong of Canada, is the first global United Nations organization with headquarters outside of Europe and North America; it is located in Nairobi, Kenya. The Environment Fund being raised by voluntary contributions from national governments, in distinction from the UN ordinary budget, has a target of $100 million for the period of 1973-1977. Pledges as of Jun 26, 1973 were in the neighborhood of $55 million, contributed by thirty countries *(9)*. The U.S. contribution of $40 million is before the Congress for appropriation at this writing. In broad terms, the purpose of the fund is to meet special costs for environmental action approved by the Council beyond or outside of services which are or can be provided by other agencies of the UN system. Under this heading, a pilot project for the IRS was approved at the Geneva meeting.

What is the role of NGOs in this network? What links are developing between this pri-

vate sector and the governmental process? NGOs are considered valuable on the international scene, because a) they can serve as objective "observers" and critics of governmental environmental disputes, b) they are likely to have professional and disciplinary bonds with their counterparts in countries with different ideologies, while governments are more rigidly divided by political philosophy, c) each NGO addresses itself to a problem or group of problems which reach deeply into the life of local communities. "They . . . reserve their rights as citizen bodies to offer constructive criticism of official programs and to remain alert to new needs and possibilities" *(10)*.

In both Stockholm and Geneva, as well as at two interim NGO meetings, the organizations expressed their support for UNEP. But this support is not unquestioning, and certainly not uncritical. In its own terrain of expertise, a specialized professional or scientific organization represents the collective problem-solving and creative power of its members. A professional organization's relationship to a government agency will greatly depend on the value the organization or institution represents for the success and future of the agency's program. As a former Staff Political Scientist of the National Water Commission said:

> Information is a political tracer element that delineates the channels of communication within a decision-making process. Up to this decade, the channel from environmental interest to decision makers was negligible *(11)*.

In UNEP's cooperation with the environmental private sector there is actually more unity of purpose and cohesiveness than in many other problem-focused fields. All the basic documents relating to the program express the need for scientific, technical, legal and other expert knowledge. "Organizations outside the United Nations System, particularly those in the countries and regions concerned, should be utilized in support of programmes financed by the Environment Fund" *(12)*. It is interesting to note how UNEP approaches the conglomerate of institutional expertise:

> In government, the tasks are divided by sector such as agriculture, health, education, transport, industry and natural resources. Development projects are often evaluated in terms of the costs and benefits within the sector. . . . And in schools and universities the subject matter is divided into fields or disciplines such as physics, mathematics, chemistry, engineering, economics, political science and history *(13)*.

This juxtaposition of problem areas ("sectors") and various approaches to analysis and solution ("disciplines") has significant implications for the organization of environmental data and information.

Assuming that the library and information sciences have their legitimate place in the line of disciplines and in the configuration of institutional relationships, the question is: What is the relative value of the "product" (or "contribution") the library and information professions offer to the international environmental program? This product is twofold: a) it is environmental information, and b) it is professional knowledge and skill necessary for the improvement of environmental information.

An analysis of UNEP documents, particularly the "Action Plan for the Human Environment" (UNEP/GC/5), which was discussed by the Governing Council in Geneva in factual and budget-minded terms, finds that information is seen by all elements in the UNEP–NGO cooperative efforts as a forceful and potent factor in environmental improvement. In fact, the value of "information" to the program is implied even if the word itself is not used. Because of the diffuse and unstandardized usage of terminology in this field, throughout the document UNEP/GC/5, terms like "the collection of research data," "the exchange," "transfer of information," "documentation" and others imply various aspects of the same professional activity.

Following from the line of thought that the role of a professional organization or institution will be largely determined by the "contribution" it can make to the pool of expertise, and that "information" and the various professional activities relating to it represent a widely needed and frequently stressed "contribution," one may conclude that information-related institutions (including libraries) would play a key role in UNEP's program. A unified, systematic approach to planning various information roles would be used in the interest of the whole range of UNEP program needs. Such a unified approach would embrace the role of information and the information professions not only a) in environmental problem-solving and technical fields (e.g., pollutants, atmosphere, oceans, energy, etc.) but

also in b) broad "environmental education" of the public and c) in the education and training of environmental information specialists. This is a far more complex and far-reaching interpretation of what "information" means for the UNEP program than has been brought out so far. It should not be assumed that the International Referral Service alone can meet this need. As of the recent conference in Geneva, however, there is no indication that this unified view of the information functions as it relates to UNEP has been discovered by either UNEP or, with some exceptions, by the institutions of the library profession.

The International Referral Service (IRS)

As part of "Earthwatch," the global monitoring and environment evaluation program of UNEP, the International Referral Service for environmental information sources was approved by recommendation 101 of the Stockholm conference. The recommendation emphasized the need for the "advice of a group of experts." The service was originally envisioned as a computer-based switchboard mechanism. An information user will receive a list of names, addresses, and descriptions of potential information sources, rather than an answer to his question. "Sources of information" have been identified by the IRS as "formal information services, information analysis centers, data files and small groups of individuals with particular expert knowledge" *(14)*. Other systems providing similar service will be able to "plug-in." The innovative factor is, of course, the inclusion in the network of individual expertise, a trend gaining attention in the profession and in library school curricula. The enormous heterogeneity of the worldwide user group will put unusual responsibilities on those who are planning the system.

> Technical assistance and training should be extended to facilitate the use of the service by developing countries. There will also be a need for a general training of both users and those responsible for gathering the data, to ensure that information sources are correctly catalogued and users are able to formulate their questions in such a way as to make the most efficient use of the service *(15)*.

One of the best papers concerning the system was a contribution by Horst Rittel entitled "UMPLIS," the environment planning information system of the Federal Republic of Germany *(16)* which demonstrates the chief criticism of the IRS—that it is intended for industrialized countries and that the underdeveloped countries cannot benefit by this service. Thus, the final Action Plan, while permitting the further development of plans for the IRS, refused immediate approval and put quite a different emphasis on the whole information process. The pertinent paragraph concerning the IRS reads as follows:

> to continue further development of the scope, structure and capacity of the International Referral System with special consideration for timely and appropriate access by the developing countries, free of charge, to this facility *(17)*.

In addition, the Secretariat is instructed to pursue other endeavors in the information field always with special emphasis on the needs of the developing countries.

NGOs at the conference insisted that interaction between the IRS and the nongovernmental sector must be truly two-way. It would be inconceivable that the IRS could depend on the information resources and services of organizations which, at the same time, would not be eligible to use the IRS themselves *(18)*. This and some other questions remained unanswered. The "Draft Statement of the NGOs Assembly to the Governing Council of the United Nations Environment Programme" made the following unanimous recommendation:

> NGOs are fully prepared to supply constant information to the system. They also urge that the UNEP recognize the critical importance of NGOs, both as sources of information and as organizations in greatest need of that information *(19)*.

Ideological Aspects of Environmental Education and Information

The IRS is only a first step. Viewed in its totality and carefully interpreted, UNEP's action plan will require from our profession the re-thinking of some concepts and the development of new approaches to information handling. As we debate the merits and drawbacks of new trends, the international scientific and professional community, mobilized for coordinated environment planning and management, has already set a whole mechanism of information activities into motion.

The UNEP "Action Plan" (UNEP/GC/5) classifies these activities into three broad categories *(20)*:

1) *Environmental Assessment*—Evaluation and review (Identification of what knowledge is needed), Research (To create new knowledge), Monitoring to gather data and to evaluate data, Information exchange (To disseminate knowledge); 2) *Environmental Management*—Planning, Conservation, Development; 3) *Supporting measures*—"Education at all stages and training of specialists, multidisciplinary professionals and technical personnel. . . ." "Public information to facilitate the utilization of knowledge in decision-making at every level," Organizational activities, Financing, Technical cooperation.

What is peculiar in this scheme is that "Information exchange" is classed under Assessment, but "Public information to facilitate the utilization of knowledge" is seen as a supporting activity. Looking at the chain of activities in the transfer of information, "a) the gathering and the evaluation of data, b) the dissemination of knowledge" may be interpreted and used differently by different information services, depending on the information context (institutional, industrial, governmental, academic, public, etc.). Information professionals are needed who understand the social implications of the information flow, and who can draw on and interact with information sources in other information environments.

One of the particular objectives of UNEP is "to help governments increase public awareness through better education and knowledge of environmental concerns and facilitate wide participation in and support for environmental action" *(20)*.

This leads into the critical area of mass information, variously translated as "enlightenment" and "propaganda." The interpretation of "educating the public" indeed may vary from country to country, from cultural area to cultural area, depending on the ideological emphasis or stigma attached to the concept of "influencing the public mind," that is, changing people's thinking, attitudes, value systems and life styles. Strong alluded to this conflict when he said that large segments of the UN constituency object to the idea of "influencing the public." The UNEP document's carefully phrased "public awareness" (rather than "Love of mankind" or "Love of nature" or any other expression with ethical connotation) was meant to avoid just this controversial point.

In the United States, an official source states:

> Through environmental education, we can learn how to explore the implications of our activities and the choices we have, and can establish a pattern of feedback to help us constantly reassess our activities. This would be the process of 'continuous social diagnosis' that was emphasized . . . in Stockholm. . . *(21)*.

On the other side of this dichotomy of approach stands the "Declaration of the Non-Governmental Organizations" at Stockholm (signed by NGO observers in their "individual capacities"), which pronounced unhesitatingly that

> The essentially interdisciplinary, humanistic and ethical aspects of environmental education—the science of ecology, planetary loyalty, respect for life, care for others and a lack of all rapacity—should be stressed at every level of education and mass communication so that all people develop a primary love for their fellow human beings and their native planet *(22)*.

To find a compromise in this philosophical-political divergence of opinions, the UNEP action plan insists that "By reason of cultural and political differences, the processes of information and education should be mainly the responsibility of national bodies" *(23)*.

It seems that the long tradition of ideological soul-searching of the public library, in the United States and many other parts of the world, has significant implications for the issue of public environmental education. A truly dynamic and relevant public library is sensitive to the changes in community and individual attitudes; it also has the capability to "educate for awareness of alternatives" rather than to prescribe ideological and ethical values. Thus the public library could become a focal point in environmental education, but not without fully understanding the social implications of the total environmental information flow. On the other hand, special and academic librarians, and all others in the information field need a basic understanding of the public aspects of environmental education. In all problem-focused professions and disciplines the most dramatic integration of environmental information resources—human and institutional—must take place at the community level, with inclusion of an increasingly participating public.

What Lies Ahead in International Cooperation?

From the vantage point of information services, at least four broad organizational avenues are developing, along which pro-

fessional associations and other NGOs may interact with each other and UNEP.

1. *Direct interaction with UNEP and its various components.* The acquisition and careful study of documents relating to UNEP and the IRS would enable an organization or institution to ascertain where and in what way it could support the program professionally *(24)*.

2. *Cooperation within the new structure.* At the Geneva conference an informal Liaison Committee was created, to keep open communications between UNEP and the NGOs. It includes 13 organizational members, each of which will delegate a representative to serve on the Liaison Committee. In addition, the conference created "expert working groups" in some fields: Natural Resources and Eco-systems; Population, Health and Biology; The Economic and Social Aspects of Development and Environment; Information and Education; Human Settlements; Institutional Problems of NGOs of less developed countries; Energy, Economy and Commerce; Inter-Disciplinary aspects of Environmental problems; Law of the Sea Conference.

These groups are to 1) mobilize the expertise available in the NGO community and assist in the formulation of policy and the identification of issues, and 2) take part in a world movement of information and education *(25)*. The Group on Information and Education is under the chairmanship of Dr. Richard G. Miller (Ekistics International). As SLA's delegate, I am a member.

3. *Action through existing professional groups.* A series of international conferences in key problem areas will mobilize the best professional resources of countries: The Conference on the Law of the Sea (1973), the Population Conference and the Conference on Environmental Medicine and Biology (both in 1974), the Conference on Human Settlements (1976), and the next meeting of the UNEP Governing Council with the presence of NGO observers (Mar 1974, Nairobi).

4. *Interaction through existing international information groups,* for instance the advisory committee for UNISIST, IFLA, FID, ISO, the International Centre of the International Serials Data System, the Abstracting Board of the International Council of Scientific Unions, etc.

The Role of SLA

Special Libraries Association has the potential to become a leader in environmental information activities. It bears repeating, that it was the only library or information science organization represented at Geneva. It was heartening to learn that the SLA Board of Directors has approved the establishment of a Special Committee on Environmental Information. This committee can play an important role in developing a unifying approach to environmental information and education, in experimentation and research into innovative ways of information handling, and in advising delegates of UN member countries in line with the recommendations of the Stockholm and Geneva Conferences.

In addition I recommend that the SLA Education Committee actively consider the implications of environmental information needs on library and information science education. There are indications that the employment market for "environmental information specialists" may open up beyond the employment capability of libraries. This and other aspects of new educational programs for this complex, multidisciplinary field should be investigated in regional meetings and workshops.

Conclusion

It is customary today to speak of change and the future. The Geneva Conference showed that, in relation to environmental information, our profession cannot indulge in these attractive concepts. The message of Geneva is not "long-range planning," but "Work—Now."

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Marta Dosa was SLA Representative to the World Assembly of Non-Governmental Organizations Concerned with the Global Environment, Geneva, 1973.

We Talked Together

Edward G. Strable

During the 1972/73 Association year four "Let's Talk Together" editorials were published in *Special Libraries.* The first three came from my typewriter, the fourth from Zoe Cosgrove (last year's Chairman of the Advisory Council) and me writing in tandem. The basic purpose of the editorials was to learn if members shared certain concerns about special librarianship and SLA and to find if some written dialogue might be engendered.

The overall response didn't cause the post office, or even my company's mail room, any real problems. But nobody really expected a flood of mail. The important result was good and thoughtful response to the editorials from good and thoughtful members. Their willingness to read, and think, and write makes preparing an informal summary of the responses to the editorials a pleasant necessity.

Here, then, is what some SLA members had to say about the four questions posed. Citations by month to the original editorials are given in case anyone feels the urge to look back.

What About *Our* Unserved Population?

The September 1972 editorial about the problem of stimulating the establishing of new special libraries indicated that there are others out there who are also concerned. Susan Kamm was first up with an idea for working with the U.S. Small Business Administration to set up special librarians as free-lancers to provide information services to small businesses that cannot afford to set up special libraries of their own. Susan sees this as a means of solving some of the drastic unemployment among special librarians and also promoting special-library-type services to groups which really need the special librarian's help. James L. Olsen (National Academy of Sciences) explored the idea of what each special library can do to promote the role of the special library in his socio-economic community. Jim believes that by responding effectively to the information needs of everyone, we promote the special library idea in diverse and unmeasurable but important ways. Charles E. Funk, Jr. (Connecticut State Library) makes a strong argument against the continued proliferation of small, often ineffectual company libraries and opts for thinking about *real* special libraries, jointly maintained by groups of companies in similar industries. This is an interesting approach and one which deserves further exploration.

The editorial helped to push two members into print. Fred N. Masters (Dexter Corporation) went ahead and submitted an article for publication which appeared under the title "Why a Company Library?" in the January 1973 issue of *Industrial Research.* The article included an opinion poll on the subject "Do You Need a Library?" Significantly, 1,198 readers of the magazine sent in their opinions and these were summarized in the April 1973 issue of *Industrial Research.* James M. Matarazzo (Simmons College) had more to say about the September editorial than could be said in a letter. His article "The Development of a Special Library: A Brief Report on an Experiment in Instruction" appeared in the May 1973 issue of *Special Libraries.* It clearly illustrates how library school faculty members can contribute to the problem of reaching the special library's unserved populations.

Probably the most welcome response was from a whole Chapter. Diana Carey, President-Elect of the Pacific Northwest Chapter, wrote to tell of the various ideas the Chapter was working on to get at their unserved population—a slide/cassette presentation on the values of special libraries, fund raising activities, and a workshop to help Chapter members sharpen and develop consultation skills. The workshop did take place in the spring and was a considerable success.

The intensity of the feedback from these members indicates that this area of concern is one to which SLA must give a high priority.

From Special Library to Information Center—Move It Or Lose It?

The November 1972 editorial raised the touchy question of the relationship between the special library and the information center and asked if the latter was replacing the former or the former evolving into the latter. The editorial was worth writing if for no reason than that it got a rise from our old friend Sam Sass (General Electric, Pittsfield, Mass.), whose letter to the editor called the whole question a "false dichotomy." Sam insists that special libraries worth their salt have always been information centers and suggests that if we want to play semantic

games we might call special libraries *information centers,* and what the hardware-happy people now call information centers should be designated *information sources.*

Herbert S. White (Institute for Scientific Information) wrote along somewhat similar lines: "Libraries, information centers, information analysis centers are to me just fragmented nomenclature for the same special library function, and if there is a task to be performed in this area within the service environment in which the special library operates, then it is the special librarian who should be performing it, whatever he calls himself." He then gets at the nub of the problem, perhaps, when he points out that not all SLA members are special librarians in terms of the motto and charter of the Association—that many seem to be content to run their libraries as educational rather than service libraries, that is, more like school and public libraries than special libraries.

Penny Deleski (Boise Cascade) does seem to see a true dichotomy. Writing as Manager of her Corporate Information Center, she distinguishes the information center function from the special library function when she says: "We consider that our centralization functions and the fact that we search for information in many non-library locations define our operation as an information center which has a special library." Mary Anglemyer (Woodrow Wilson International Center for Scholars) agrees that the special library is in danger of being replaced by something else unless librarians arouse themselves and become more active professionally. And James L. Olsen wrote again with a specific suggestion about how to tackle this problem. He suggests the development by SLA of guidelines through organized discussion. These would show the route which special libraries might follow in moving toward the information center idea.

Although the special library/information center question produced the least number of answering letters, it probably produced the most heat. Opinions are strong in this area and some means must be found for more thorough open discussion in SLA.

Interlibrary Cooperation—What Can We *Give?*

The editorial in the January 1973 issue raised a concern about the place of the special library in the cooperative movement and asked what unique contributions special librarianship can make to interlibrary cooperation. This one hit the jackpot in a number of responders and there were many straightforward answers to the question. Susan Gensel, a transferee from California to the Cold Spring Harbor Laboratory on Long Island wrote of her pleasure in finding her special library *could* supply public and university libraries with highly specialized and expensive items dealing in certain aspects of the biological sciences. She also feels strongly that special librarians must participate in the governing bodies of cooperatives. In a somewhat similar vein, Diane Tucker (Boeing) tells of the satisfactions which come when a special library becomes a contributor through cooperation. She says, "Their using us is a source of satisfaction after its being one-sided for so long." Jean Dulaff of Albuquerque, New Mexico (formerly librarian for the National Committee on Employment of Youth) believes that economy is the strongest argument for the formation of consortia, and our specialized materials are the greatest contribution we can give to cooperation.

Carol McKowen of Springfield, Mo., a student of library science, wrote to relate some of the problems and pleasures she had faced in trying to borrow materials in areas where library cooperation has not taken hold. A most interesting letter came from Elin Christianson, who has moved from being a practicing special librarian (J. Walter Thompson Co., Chicago) to being a library consultant and, therefore, a user of all types of libraries. From the other side of the circulation desk, Elin identifies four areas in which the special library makes unique contributions to researchers through interlibrary cooperation: 1) depth of coverage in the library's special subject; 2) convenience in physical and subject arrangement; 3) currency—that is, the materials get onto the shelves and into the files more quickly; and 4) expertise of the special librarian in the literature and other information resources of the subject. Ever so politely, she allows there is something extra to be said about the orientation to service which is reflected by the special library.

From Canada comes some interesting reinforcement of Elin Christianson's point of view. Joyce Bocknell (Bell Canada) responded to the editorial by ending information about a meeting sponsored by the Special Libraries Division of the Ontario Library Association on the subject "Access: Information Exchange" and which was held in May 1973. A paper by Beryl Anderson, University

of Toronto Faculty of Library Science, presented a perceptive analysis of the relationship of the special library to networks. One statement reads: "the special librarian can bring two intangible but very valuable assets: a strong service orientation and a tenacity in pursuit of needed information that has not always been characteristic of other kinds of libraries."

James Olsen echoes the contributions which can be made by our special collections and our special knowledge and skills, and he also argues for making our resources truly available to our communities. He points out, additionally, that it may cost the smaller special libraries something: "dollars may have to be invested for the privilege of joining and sharing." Herbert White puts this idea even more bluntly when he writes that the industrial special library "can best contribute that which it is most capable of contribution—money." Herb bet that his would be the only answer of this nature. But also along comes Joseph Dagnese (Purdue University Libraries) with a whole paper on the subject of "Cooperation Between Academic and Special Libraries" which has as its main thesis that cooperation between these types of libraries should probably be based on financial considerations—that the successful programs "have had a financial basis either in truly reciprocal service agreements or in soundly funded fiscal arrangements."

There is no question that a number of SLA members feel that special libraries can contribute plenty to interlibrary cooperation —ranging from hard cash to the philosophical base of the special library idea. "Putting Knowledge to Work" wouldn't be an inappropriate motto for the whole interlibrary cooperation movement.

How Can the Individual SLA Member Influence the Association?

The fourth and last editorial (April 1973), the Cosgrove-Strable effort, discussed the variety of channels available to the SLA member who wants to have his say in the Association, and asked why the channels are not used more often by members.

Direct stimulus-response was illustrated by Irving Neufeld (United Aircraft Research Laboratories) who responded with a specific suggestion to the Bylaws Committee concerning deferment of payment of Association dues for unemployed members, accompanied by a supporting petition signed by 18 members. On the other hand, Albert Vara (Paley Library, Temple University) used the occasion to strongly state his position about the profession's service to the international structure of librarianship.

Forrest Carhart's (New York Metropolitan Reference and Research Agency) approach was more philosophical, discussing the two points of view concerning how elected representatives meet their responsibilities. His own attitude is that the emphasis must be on the representative acting on the basis of his own conscience, rather than attempting to survey his constituency. Loyd Rathbun (MIT Lincoln Laboratory), too, in a Friendly Open Letter to Cosgrove and Strable, states that officers should consider it their duty to act for SLA as they see fit. Loyd believes "channels should be kept open, but for our representatives to fret over or to even consider lack of use of the channels is to waste energy which should be better used for productive Association activity."

Last up to bat, and almost too late for this summary, was Helen Waldron (Rand Corporation). She endorses the necessity of pointing out the channels of communication in SLA every once in awhile and urges increased effort in SLA to help Chapter and Division officers learn how to communicate their members' concerns to the Association. She points out that equally as important as encouraging members to communicate with the Association is that the Association, as represented by any one of its governing bodies, must communicate back, and must communicate back effectively.

Len Waldron's letter made a fine finale to a fine session of talking together. To each of you who cared enough to send your very best thinking, my sincere thanks. I apologize if I did not select your favorite line for this summary, but that's because each of you said much worth quoting.

What about results? Some of them are evident from the summary. Others are ripples which may well become tidal waves.

SLA on Photocopying

July 31 was the new D-Day for additional hearings by Senator John McClellan's Subcommittee on Patents, Trademarks, and Copyrights regarding the proposed Copyright Law Revision Bill S.1361 (93rd Congress). Senator McClellan's decision on July 10 to reopen hearings was sudden, and was published in the July 13, 1973 issue of the *Congressional Record.*

Hasty telephone communications between SLA's New York Office and Board members resulted in the preparation of written testimony submitted to the Senate Subcommittee. The primary focus of SLA's testimony was the Board policy determination approved in Jan 1973 after discussion and approval by the Advisory Council (as based on material developed by SLA's Copyright Committee with the assistance of SLA's legal counsel for copyright matters. Background information on SLA's position appears in *SL* 63 (no.7): 337, 338 (Jul 1972); 62 (no.11): 537–540 (Nov 1972); and 64 (no.3): 155, 158 (Mar 1973).

The July hearings on photocopying had been scheduled for two half-day sessions: 1) library photocopying provision, and 2) the proposed general exemption for multi-copy preparation for classroom use as requested by NEA (National Education Association). Other aspects of the bill (for example, CATV) were scheduled for Aug 1.

ARL and ALA had been allotted 15 minutes each for oral testimony. SLA had been allotted 5 minutes for oral testimony. Representatives of a number of publishers were allotted between 5 and 15 minutes of oral testimony each.

Oral testimony for SLA based on the policy items referenced above was presented to the Senate Subcommittee by the Executive Director, Frank E. McKenna and the chairman of SLA's Copyright Committee, Jack S. Ellenberger.

Library concerns regarding single copy photocopying center on §§106, 107, and 108 of the proposed bill, with special emphasis on the provisions of paragraph 108(d). ARL proposed an amended version of paragraph 108(d); this proposed amendment was supported by the representatives of ALA and MLA. The ARL proposal had just become available before the opening of the hearings. SLA's representatives could not support this proposed amendment because it was not only contrary to the SLA policy statement but also because the proposed amendment had defects which were as serious—if not more serious—than those in the existing draft bill.

Sen. McClellan allowed the record of the hearings to remain open until Aug 10 to allow SLA to submit an Addendum to its previously submitted written testimony. A telephone conference of the Executive Committee of the Board resulted in a re-affirmation of the SLA policy statement plus specific criticisms of the amendment to §108 as submitted by ARL. The SLA Addendum with commentary was submitted to the Senate Subcommittee to become part of the record of the hearings.

Because the entire problem of provisions of S.1361 as they relate to library photocopying is quite complicated, readers are urged to read and compare carefully the wording particularly of §§107 and 108 (a-d) as they now exist in the draft bill, the amendment to §108 as proposed by ARL, and the two SLA Statements submitted to the McClellan Subcommittee.

Statement for Special Libraries Association

Regarding Library Photocopying Provisions in the Revision of the Copyright Law, S.1361

to the

Senate Subcommittee on Patents, Trademarks and Copyrights
Senator John L. McClellan, Chairman
on July 31, 1973.

I wish to present the position of the Special Libraries Association with respect to the provisions of S.1361 as they relate to library photocopying and interlibrary loan in lieu of photocopies. The policy position as adopted by the Association's Board of Directors in January 1973 is one which seeks to reach an intermediate position of accom-

modation between the seemingly irreconcilable positions of publishers and literary authors on the one side, and the positions of some parts of the library and educational communities on the other.

Special Libraries Association, with 8,000 members, is the second largest library- and information-oriented organization in the United States. It is estimated that there are more than 10,000 special libraries in the U.S. The concept of special libraries or—in better words—the concept of *specialized* libraries is not well known among the general public or even in some segments of the library community itself. The interests and activities of specialized libraries are described briefly in this document and in the annexed brochure.* SLA is an association of individuals and organizations with educational, scientific and technical interests in library and information science and technology—especially as these are applied in the selection, recording, retrieval and effective utilization of man's knowledge for the general welfare and the advancement of mankind.

Special Libraries Association was organized in 1909 to develop library and information resources for special segments of our communities which were not adequately served by public libraries or by libraries in educational institutions. At first the emphasis was on special subject coverage in each special library as it related to the interests and business of its parent organization, for example: sources of statistical data for both corporations and the agencies of the national government and state governments; business data for banks and investment firms; chemical information for the then developing chemical industry; engineering information for the emerging complexes of engineering and construction companies, etc.

During the past 64 years—and with particular growing needs for rapid information delivery since World War II—specialized libraries and information centers have been established in all segments of our nation's affairs. They exist in for-profit enterprises and not-for-profit organizations, as well as in government agencies. Some are open to public use, and others have restricted access or are part of a for-profit organization. During this period of accelerated growth, the original emphasis on special subjects has been replaced more and more by the concept of *specialized information services for a specialized clientele.* An example of such a specialized information service for a specialized clientele is the Legislative Reference Service of the Library of Congress. Although the Library of Congress (as a whole) is often called a "national library," the entire Library of Congress itself is, perhaps, an outstanding example of a definition of service to a specialized clientele: The Congress of the United States of America.

The specialized clients are normally the employees of the parent organization. The specialized information services are based on the speedy availability of information, both for current projects and for management determination of decisions regarding future efforts of the parent organization. To these ends, the members of SLA include not only librarians, but also persons who are subject specialists—so that they can evaluate and screen out the irrelevant, the redundant and the too often useless portions of the voluminous published literature. The totality of the literature includes not only the publications of commercial publishers of copyrighted books and periodicals but also the avalanche output of government agencies (often with security handling requirements) plus the parent organization's own internal corporate documents (with the obvious need to protect proprietary or competitive information).

As a parenthetical observation, it should be noted that the pioneering work in machine use for information storage and retrieval (now computerized) took place in specialized libraries and information centers in the 1940's and 1950's. Similarly, the need for miniaturization of the bulk of the literature in microforms occurred through the influence of SLA's liaison with designers and manufacturers of micro-reading equipment.

Last, but not least, SLA pioneered the concept of information networks—long before computers and other communication devices had been developed. SLA has facilitated communications among its members through the Association's unique information network of Chapters and Divisions. Initiated more than 60 years ago, the network has been frequently updated in response to the needs of new informational requirements.

SLA is organized in 25 Divisions which represent broad fields of specialization or information handling techniques. These fields range alphabetically from Advertising, Aerospace, and Biological Sciences through Military Librarians, Museums, and Natural Resources, and Transportation, and Urban Affairs.

* Annex. *Special Library Sketchbook.* SLA, New York, 1972. 45p.

SLA is also organized in 44 regional Chapters which range geographically from Hawaii across the continental United States (plus two Chapters in Canada) and on to a European Chapter (which encompasses geographically all the non-Socialist countries of Europe).

Special Libraries Association in its own right is a publisher of three periodicals and of an average of six books per year. Therefore the Association has its own interests as a publisher to conserve its sales income and royalty income. The Association's publications are needed by special groups, but they are in such areas of specialization that commercial publishers (or even vanity presses) would not touch them because of the small sales potential. Our subscription lists range from 11,000 as a high to 1,000 as a low. Our book sales average about 1,000 copies for each title with a range from 500 to our top category of "best sellers" at a level of about 3,000 copies sold per title.

Special Libraries Association and its individual members would prefer continuation of the long recognized concept that the preparation of a single copy constitutes "fair use." The Association recognizes that there may be some validity in the claims of commercial publishers of periodicals that they may have some loss of income due to photocopying of one article from a periodical issue that is *still available in-print.* If the publication is out-of-print (that is, if the publisher has not maintained his stock in-print), it is difficult to conceive how a photocopy of out-of-print material can cause any loss of income to the publisher.

Further, the slow delivery by publishers to fulfill an order for a single in-print issue is totally unacceptable to the needs of our specialized users who are responsible for fast management decision. There is little question that it is an administrative impossibility to secure publisher permissions to permit interlibrary response within any reasonable time. Moreover, the costs and delays in seeking such permissions would be prohibitive.

Four items must be emphasized:

1. Totally unacceptable is the concept that has been proposed of an agency to determine whether an original is still available with a report period of, say, 21 days. The information needs and expectations of management are such that delivery in excess of 24 to 48 hours is incompatible with research and management decision processes.
2. As a starting point, one potential solution is a provision for the payment of a per-page royalty on photocopies of copyrighted works. Such an arrangement has precedence already in the proposed Copyright Act in §111 (relating to cable transmissions), §114 (sound recordings), §115 (phono records), and §116 (coin operated phono record players). A Royalty Tribunal of the type proposed in Chapter 8 of the Copyright Revision Bill (but with a different membership composition) could assure that the per-page royalty rate is reasonable.
3. Any legislative proposal should assure that libraries are not required to separately identify and account for each photocopy which they prepare, or to determine the allocation of the royalties, or to distribute the royalties for which they may be liable among the copyright proprietors. If payment of a "cents-per-page" charge is enacted, the beneficiaries of such charges (that is, the publishers) must themselves establish the agency for the collection and for the determination of pro rated payments to each publisher (in an ASCAP-style operation). Specialized libraries (and their parent organizations) can probably afford an added "cents-per-page" charge. But they *cannot* afford the added costs of record keeping and bookkeeping to issue checks for small amounts to each one among the multitude of publishers.
4. The legislation to be enacted must not prevent or penalize the preparation of a photocopy for or by specialized libraries—particularly those in for-profit organizations. There will be immeasurable damage to the economy and the welfare of the nation if such intent is contained in the enacted version of S.1361, or if such interpretation is possible after enactment of the law.

The rapid transmission of man's knowledge—either to not-for-profit or to for-profit organizations—must not be impeded by law.

Special Libraries Association is grateful to the Subcommittee for the opportunity to present our views. The Association will be pleased to submit additional comments in the future if such would be appropriate.

F. E. McKenna
Executive Director

Addendum to Statement for Special Libraries Association

Regarding Library Photocopying Provisions in the Revision of the Copyright Law, S.1361 as presented on July 31, 1973

to the

Senate Subcommittee on Patents, Trademarks and Copyrights Senator John L. McClellan, Chairman

A proposed amendment to §108(d) of S.1361 was presented by the Association of Research Libraries (ARL) and the American Library Association (ALA) at the hearings on July 31, 1973. Because SLA was not aware of the proposed amendment before the hearing, I was not able to reply for SLA when the Committee's Chief Counsel asked if the ARL-ALA proposal was acceptable to SLA. Since then, I have communicated with members of the SLA Board of Directors by means of a telephone conference call.

In this Addendum, SLA is presenting our reply plus comments on several other items in S.1361 which are pertinent to our position as well as pertinent to our comments on the ARL-ALA proposed amendment. Our comments are presented in the sequence:

1. SLA Adherence to the Position
2. SLA Opinion Regarding the Proposed ARL-ALA Amendment
   - 2.1 In relation to proposed §108(d)(1)
   - 2.2 In relation to proposed §108(d)(2)
   - 2.3 In relation to the Qualifying Clause of proposed §108 and to existing §108(a)(1) and (2).
   - 2.4 Summary
3. Support for proposed National Commission on New Technological Uses of Copyrighted Works.

1. *SLA Adherence to Its Position.* SLA maintains as its first preference, the position as presented in our written statement (dated July 26, 1973) as presented to the Subcommittee. To restate our position briefly, it is one which seeks to reach an intermediate position of accommodation between the seemingly irreconcilable positions of publishers and literary authors on the one side, and the positions of some parts of the library and educational communities on the other. We have suggested that there be a provision for the payment of a per-page royalty on photocopies of copyrighted works at a rate of "cents-per-page." Such an arrangement has precedence already in the proposed Copyright Act in §111, 114, 115 and 116 (relating to cable transmissions, sound recordings, etc.). A Royalty Tribunal of the type proposed in Chapter 8 of the Copyright Revision Bill could assure that the per-page royalty rate is reasonable. We believe that a range of $0.01–$0.05 should be both fair and adequate. In addition, the publishers must themselves establish the agency for the collection and for the determination of pro rated payments to each publisher (in an ASCAP-style operation).

2. *SLA Opinion Regarding the Proposed ARL-ALA Amendment.* SLA could *only* support the proposed amendment to §108(d) if certain modifications were to be introduced. Some of the modifications refer to the specific wording as submitted; other modifications refer to the relationship of §108(d) to §108(a) (1) and (2).

2.1 SLA objects to the unnecessary inclusion of the word, *further,* in §108(d)(1) of the proposed amendment:

"(1) The library or archives shall be entitled without *further* investigation, to supply a copy of no more than one article or other contributions. . . ."

Inclusion of the word, *further,* can mean that some other investigation is required. If the intent of the proposed §108(d)(1) is to implement the concept of "fair use" (§107) the inclusion of the word, *further,* can result in interpretations which will inevitably lead to delays in service to the user.

Although the proposed ARL-ALA substitute for the existing §108(d)(1) states library or archives entitlement to supply a copy of

> "no more than one article or other contribution to a copyrighted collection or *periodical* issue . . . (emphasis supplied),"

it is principally periodical articles that must be photocopied in or for most special libraries. Moreover, time is usually of the essence. Hence, the language of §108(d)(2) in the proposed substitute requiring "rea-

sonable investigation" for obtaining reprints or permissions to copy is a procedure that might cripple the operations of most special libraries. A similar "procedural" requirement for obtaining "an unused copy" presently exists in §108(d)(1) of S.1361. It is certain that most special libraries would prefer either *no* requirement to seek permissions or reprints of periodicals especially, or, preferably, some means of paying for all copying that might exceed a statutory limitation on "fair use" however finally defined. In the event that multiple copies might be required, such a proposed payment would also provide equitable payment to the publishers.

2.2 SLA objects to the underlined portions of the proposed §108(d)(2).

"(2) The library or archives shall be entitled to supply a copy or phonorecord of an entire work, or if more than a relatively small part of it, *if the library or archives has first determined,* on the basis of a reasonable investigation that a copy or phonorecord of the copyrighted work cannot readily be obtained *from trade sources.*"

The second underlined words, *from trade sources,* are even broader than the existing §108(d)(1) in S.1361, "from commonly known trade sources," and therefore the proposed amendment is even less satisfactory. "Trade sources" is a term used to include second-hand book stores, antiquarian book dealers, etc. If the book is "out-of-print" (that is, when the original publisher's stock is exhausted), the original copyright owner is not deprived of any income if a copy is purchased from a second-hand book dealer. The mechanism of using "Books-In-Print" (published by the R. R. Bowker Co., a Division of Xerox, New York) is a simple and straightforward mechanism. The information in "Books-In-Print" is supplied by the publishers themselves. (There is no comparable compilation for periodicals.)

The first underlined words, *if the library or archives has first determined,* will result in very bad delays in our opinion. The larger research libraries (from whom most photocopies are requested) have, for a number of years, complained publicly of insufficient staff even to service requests for photocopies of only a few pages. There is only a limited number of librarians (in the larger research libraries) qualified to address intelligent queries to "trade sources."

2.3 Deletion of the Qualifying Clause in the first sentence of the proposed §108(d):

> ". . . whose collections are available to the public or to researchers in any specialized field."

This language simply emphasizes a qualification already stated in §108(a)(1) and §108(a)(2) that

> "(1) . . . reproduction or distribution is made without any purpose of direct or *indirect commercial advantage* (emphasis supplied); and (2) The collections of the library or archives are (i) *open to the public* . . . (emphasis supplied).

Without further definition of the meaning of this existing language, it must be pointed out that a majority of special library operations *are* conducted for purposes of "indirect commercial advantage" for parent business or industry. Moreover, a majority of these libraries are not usually "open to the public" nor to "researchers in any specialized field" if this language is further interpreted to mean specialized research of a *competitive* nature as now defined in Clause (ii) of §108(a)(2) of S.1361, 93rd Congress.

Hence, the immediate concern of the Special Libraries Association in the §108 limitation on exclusive rights is the exception from this limitation by virtue of the *character* of most special libraries—a point not heretofore clearly expressed to Congress or widely understood by the other library associations who have a wider public constituency. However, it is understood that it would be totally inequitable to seek a further limitation on exclusive rights by insisting upon the deletion of §108(a)(1) and (2) language as it apparently applies to special libraries. But we would insist upon the deletion of the "access" requirement that is repeated in the ARL-ALA proposed substitute for §108(d)(1).

2.4 In summary, it is for the above reasons that Special Libraries Association is seeking to reach an intermediate position of accommodation between the publishers and literary authors on the one hand, and other library associations on the other hand by way of establishing some method of collecting per-page royalty copying fees in excess of "fair use" copying in special libraries—however, "fair use" is finally defined in §107 of S.1361.

In the view of this Association, it would be far more equitable for both publishers

and libraries to establish a royalty or licensing mechanism that would free both parties from the onerous routine of seeking reprints or permissions before copying out-of-print works.

3. *Support for Proposed National Commission.* Proliferation of new, and ever more specialized periodicals and other publications at constantly increasing subscription rates is a major cause of decreasing number of subscribers. This proliferation of new periodicals began after World War II in the same time period that photocopying equipment became more commonly available and more widely used. All decreases in subscription income cannot be ascribed to photocopying. Publishers themselves have not applied appropriate "birth control" or management evaluation measures to their own products: Unfortunately, no unbiased data are available to sort out and evaluate the resulting claims and counter claims.

Special Libraries Association wishes to emphatically state its support of Title II of S.1361 for the establishment of a National Commission on New Technological Use of Copyrighted Works.

* * *

Special Libraries Association is aware of the many contradictory points of view and problems in interpretation that have been submitted to the Subcommittee. The Association wishes to record its commendation of the Subcommittee for its careful consideration and assessment of the many aspects of the copyright field.

F. E. McKENNA
Executive Director

Amendment to Copyright Revision Bill, S.1361 Recommended by the Association of Research Libraries American Library Association

Substitute for section 108(d) the following:

(d) The rights of reproduction and distribution under this section apply to a copy of a work, other than a musical work, a pictorial, graphic or sculptural work, or a motion picture or other audiovisual work, made at the request of a user of the collections of the library or archives, including a user who makes his request through another library or archives, but only under the following conditions:

(1) The library or archives shall be entitled, without further investigation, to supply a copy of no more than one article or other contribution to a copyrighted collection or periodical issue, or to supply a copy or phonorecord of a similarly small part of any other copyrighted work.

(2) The library or archives shall be entitled to supply a copy or phonorecord of an entire work, or of more than a relatively small part of it, if the library or archives has first determined, on the basis of a reasonable investigation that a copy or phonorecord of the copyrighted work cannot readily be obtained from trade sources.

(3) The library or archives shall attach to the copy a warning that the work appears to be copyrighted.

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and renumber section 108(d)(2) to make it 108(d)(4).

S.1361 Draft Bill on Copyright Law

§ 107. Limitations on exclusive rights: Fair use

Notwithstanding the provisions of section 106, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching, scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use, the factors to be considered shall include: (1) the purpose and character of the use; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work

as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.

§ 108. Limitations on exclusive rights: Reproduction by libraries and archives

(a) Notwithstanding the provisions of section 106, it is not an infringement of copyright for a library or archives, or any of its employees acting within the scope of their employment, to reproduce no more than one copy or phonorecord of a work, or distribute such copy or phonorecord, under the conditions specified by this section and if:

(1) The reproduction or distribution is made without any purpose of direct or indirect commercial advantage; and

(2) The collections of the library or archives are (i) open to the public, or (ii) available not only to researchers affiliated with the library or archives or with the institution of which it is a part, but also to other persons doing research in a specialized field.

(b) The rights of reproduction and distribution under this section apply to a copy or phonorecord of an unpublished work duplicated in facsimile form solely for purposes of preservation and security or for deposit for research use in another library or archives of the type described by clause (2) of subsection (a), if the copy or phonorecord reproduced is currently in the collections of the library or archives.

(c) The right of reproduction under this section applies to a copy or phonorecord of a published work duplicated in facsimile form solely for the purpose of replacement of a copy or phonorecord that is damaged, deteriorating, lost, or stolen, if the library or archives has, after a reasonable effort, determined that an unused replacement cannot be obtained at a normal price from commonly known trade sources in the United States, including authorized reproducing services.

(d) The rights of reproduction and distribution under this section apply to a copy of a work, other than a musical work, a pictorial, graphic or sculptural work, or a motion picture or other audiovisual work, made at the request of a user of the collections of the library or archives, including a user who makes his request through another library or archives, if:

(1) The user has established to the satisfaction of the library or archives that an unused copy cannot be obtained at a normal price from commonly known trade sources in the United States, including authorized reproducing services;

(2) The copy becomes the property of the user, and the library or archives has had no notice that the copy would be used for any purpose other than private study, scholarship, or research; and

(3) The library or archives displays prominently, at the place where orders are accepted, and includes on its order form, a warning of copyright in accordance with requirements that the Register of Copyrights shall prescribe by regulation.

[The remainder of this section of the draft bill is not pertinent.]

Williams & Wilkins vs. NLM in the U.S. Court of Claims

No decision has yet been handed over in the long standing suit filed by Williams & Wilkins against the National Library of Medicine. The seven-member U.S. Court of Claims did not announce its decision before beginning its summer recess. Thus, the Commissioner's decision in favor of Williams & Wilkins has neither been affirmed nor denied by the full court. The next date for the announcement of decisions by the full court is in mid-October.

CHAPTERS & DIVISIONS

Alabama—The Chapter sponsored a seminar on government documents on Apr 18. Speakers were from GPO, DDC, ERIC, NASA, and the Alabama Department of Archives and History.

Baltimore—The Chapter met May 22, jointly with ASIS, to consider "Information Columbia: 1965 Plan, 1973 Reality." Copies of the "Library Plan for Columbia" were distributed.

Cleveland—The Betty Burrows Memorial Seminar on Acquisitions was held Apr 13. Dan Melcher was the main speaker.

Connecticut Valley—The Chapter held three mini-courses May 3, during the annual conference of the Connecticut Library Association. The topics were "Planning for Physical Facilities," "Media in the Library of the Seventies," and "Career Planning and Development."

Florida—The Chapter met May 3 at the Florida Power Corporation. A tour of the facility was held. The business meeting took place after lunch.

"Sources of Information in Our Local Communities" was the topic of three all-day mini-workshops held Jul 24, 25, and 26 in Miami, Orlando, and Tallahassee, respectively.

Geography and Map—Catherine I. Bahn (principal recommending officer, Science and Technology Division, Library of Congress) received the Division's annual honors award for outstanding achievement in geography and map librarianship. The award was presented Jun 11 at the Division's annual business meeting in Pittsburgh.

Michigan—The Biological Sciences Division completed a busy year at a meeting May 10. A report was heard from the committee investigating the problems with the National Library of Medicine. Also discussed was a proposed First Michigan Health Science Library Conference to be held Jun 13–15, 1973.

Minnesota—The Chapter co-sponsored with ASIS an Apr 26–27 symposium on "Forecast for Information Service." The colloquium surveyed the state of the art, research, and educational implications for library/information systems specialists.

A joint meeting with ASIS was held May 15 at Mankato State College to discuss the College Media System.

Montreal—*Directory of Special Libraries in Montreal* is available for $4.00 from Mrs. Marjorie Judah, Management Library, McGill University, 1001 Sherbrooke St. West, Montreal 110, P.Q.

Newspaper—The Division celebrated its Golden (50th) Anniversary during the SLA Conference in Pittsburgh, at a luncheon on Jun 14, 1973.

New York—The Chapter met May 15 at the Schimmel Theater. After the business meeting, Harold W. Miller (chief librarian, Touche Ross & Co.) reported on the activities of the Chapter's Ad Hoc Committee on GPO.

New York, Social Science Group—"Libraries in Prisons" was the topic of the Group's May 2 meeting. Speakers were John Black (librarian, New York City Department of Community Development; formerly librarian, Wallkill Correctional Facility), Robert Brown (member, Fortune Society), and Ted Slate (Librarian, *Newsweek*'s chairman, Libraries for Prisons).

Pacific Northwest—The Chapter's annual business meeting featured a presentation of the Washington Library Network Resource Directory Pilot Project. Speakers were Jean M. MacDonald (chief of automated information and data systems organization, Boeing Computer Services) and Maryan E. Reynolds (chairman, Washington State Library).

Philadelphia—*Directory of Special Libraries and Information Sources in the Philadelphia Area,* 13th ed., 1973, is now available for $6.00 to Chapter members, $8.00 to others. Order from: Philadelphia Chapter, SLA, Hamilton Motor Inn—Apt. F-401, 39th and Chestnut Sts., Philadelphia, Pa. 19104.

The duPont home and the Hagley Museum at Eleutherian Mills was the scene of the Chapter's May 19 meeting. Dr. Williams, library director, described their unique collection of industrial history.

Rio Grande—A celebration luncheon was held Mar 24 in honor of the editors and 15

Chapter members and friends who assisted in the compilation of *Dictionary of Report Series Codes,* 2d ed., published by SLA in early 1973. Pictured are Lois Godfrey and Helen Redman, editors.

San Diego—The Chapter is planning workshops on Computer Based Information, to be held at Rancho Bernardo Inn, San Diego. Speakers include Charles Bourne, Robert Hayes and Hugh Sauter. For information contact: Hugh Davison, University of California Extension, Box 109, La Jolla, Calif. 92037.

San Francisco Bay Region—A tour of the Silverado Museum and lecture by Ellen Shaffer, curator, were features of the Chapter's May 5 meeting. Proceeds went to the SLA Scholarship Fund.

The Chapter welcomed a delegation of Japanese special librarians Sep 5–7. A dinner was held Sep 6 to honor the guests from Special Libraries Association of Japan (Sen-To-Kyo). The group visited several library facilities in the area.

Southern California—The Aerospace and Science-Technology Divisions presented the Apr 30 meeting on "Present and Future Deep Space Programs with Humans, Robots??"—James Burke, manager, Advanced Technical Studies, Jet Propulsion Laboratories, spoke.

SLA Contributions

Summer housecleaning at SLA's New York Offices enabled old desks, chairs, and assorted old office furniture no longer in use to be discarded. These items were donated to Phoenix House Foundation and to the Fortune Society, N.Y.

Nominations for 1974 SLA Awards

Nominations for two SLA awards are due by Jan 3, 1974. Individuals, as well as Chapters and Divisions, may submit nominations. All nominations must be completely documented within the definitions of the purposes of the two awards. Forms and instructions for nominations have been distributed to all Chapters and Divisions. Additional forms are available from the Association's New York offices.

The SLA Professional Award. The highest recognition granted by this Association is awarded after consideration of *all significant contributions made to librarianship and information science.* The definition of the SLA Professional Award is:

> "The SLA Professional Award is given to an individual or group, who may or may not hold membership in the Association, in recognition of a specific major achievement in, or a specific significant contribution to, the field of librarianship or information science, which advances the stated objectives of the Special Libraries Association. The timing of the Award shall follow as soon as practicable the recognized fruition of the contribution."

The SLA Hall of Fame. In documenting nominations, the following criteria for eligibility to the SLA Hall of Fame should be remembered:

> "SLA Hall of Fame election is granted to a member or a former member of the Association *near the close or following completion of an* active professional career for an extended and sustained period of *distinguished service to the Association in all spheres of its activities (Chapter, Division, and Association levels).* However, prolonged distinguished service within a Chapter, which has contributed to the Association as a whole, may receive special consideration."

The basic purpose of the SLA Hall of Fame is to recognize those individuals who have made *outstanding contributions to the growth and development of Special Libraries Association—as a whole—over a period of years.*

Mail completed forms to: **Efren Gonzalez, Chairman**
SLA Professional Award and Hall of Fame Committee
Bristol-Myers Products
Science Information Services
1350 Liberty Ave.
Hillside, N.J. 07207

REVIEWS

Cataloging for Library Technical Assistants, 2d ed., by Jay E. Daily and Mildred S. Myers. Washington, Gryphon House, 1973. 96p. $4.00

This book is a schizophrenic approach to the subject of cataloging. The title may be *Cataloging for Library Technical Assistants,* but on page one the statement appears that it is "meant for any person who wishes to have a general introduction" to book cataloging. While the introduction goes on to say that "the work . . . is intended to make on-the-job training meaningful for the person who does not have a master's degree in library science," the preface states that "the textbook has been used in cataloging courses at the Graduate School of Library and Information Sciences" (of the University of Pittsburgh, the authors' home). Is the book intended to help train technicians or help train future librarians? There should be a different approach for each purpose.

Primarily the book is aimed at school and public library technical assistants, judging by the accent on the Dewey classification system and Sears subject heading list. There is no discussion of the Library of Congress classification scheme. There are insufficient illustrations, and those that appear are poorly coordinated with the text. For example, in the section on bibliographic description the statement appears that "the edition statement is simply recorded as: 3d ed." The accompanying illustration shows "2ed." In this instance the text is wrong from the authors' viewpoint because they say "it is customary to give the edition in Arabic numerals with the abbreviation 'ed.'". This section on bibliographic description is too superficial in its definitions, considering the importance of the material to almost every library technical assistant.

There is one item of bibliographic description which is not slighted. Main entry has a chapter devoted to it. This chapter proposes a (pet?) title unit entry system developed at the Graduate School of Library and Information Sciences. It is inappropriate to include an advanced discussion on a theoretical system in a book meant for technicians. Technicians, generally speaking, are not in a position to evaluate or implement methods and procedures in their libraries—especially those bearing on the major principle of main entry.

A workbook is available for use in conjunction with the textbook. I did not see the workbook, so I cannot evaluate it. In the textbook, questions are included at the ends of the chapters. There is no general index. There is no bibliography or list of suggested readings for further study. There is a list of "Standard Tools for Acquisitions Searching", but nothing in the text about the subject.

If you want a more detailed description of the title unit entry system, see Daily's article in *Library Resources & Technical Services,* Fall 1972. If you want a good book on cataloging and acquisitions for library technical assistants, see Bloomberg and Evans, *Introduction to Technical Services for Library Technicians.*

William C. Petru
Hewlett-Packard Company
Palo Alto, Calif.

Mainly on Patents: The Use of Industrial Property and Its Literature, edited by Felix Liebesny. Information Sources for Research and Development. London, Butterworth; Hamden, Conn., Archon Books, 1972. 210p. $15.00.

Written from the British standpoint, the book is designed for senior and middle management personnel who must make decisions on complex questions involving industrial property—patents, tradenames, and trademarks. It presents a detailed study of the British patent system so that managers, scientists, and librarians can converse intelligently with both inventors and patent agents.

The book also would be useful in libraries and information centers in U.S. companies that have British subsidiaries or British competitors.

The chapters include: historical background; salient features of the British, U.S. and principal foreign patent systems, such as what is patentable, length of life of patents, or length of opposition periods; ways in which patents can be exploited by way of licensing and other uses; patents as sources of technical information; how to search the patent literature from the standpoints of both current awareness and retrospective searching; trademarks and registered designs; and future developments of the patent system in Britain.

Each chapter is written by an individual author, with the editor responsible for the ones concerning technical information and searching. The preface states that Liebesny has taught courses on patent literature for members of ASLIB and to students at City University.

Martha J. Bailey
Purdue University
Physics Library
West Lafayette, Ind. 47907

PUBS

(73–11) **The Oral History Collection of Columbia University.** Mason, Elizabeth B. and Starr, Louis M. New York, Oral History Research Office, 1973. xvii,460p. (apply) LC 73–78480

This catalogue is a guide to the world's largest collection of unpublished reminiscence. The collection emphasizes 20th century American life. Arrangement is alphabetical by surname. Subject and biographical indexes.

(73–12) **Systems Design and Analysis for Libraries,** Lancaster, F. Wilfrid, ed. **Library Trends** 21 (no.4): (Apr 1973) Urbana, University of Illinois Graduate School of Library Science, 1973. $2.50

An overview of theory and practice is presented in this collection of ten papers. General planning, use of systems analysis as a decision-making tool, use in preparation for library automation, implementation of new systems and analysis of costs and performance are included.

(73–13) **Directory of Library Reprographic Services,** 5th ed. Nitecki, Joseph Z., ed. Weston, Conn., Microform Review for Reproduction of Library Materials Section, RTSD / Amer. Libr. Ass., 1973. 105p. $4.50 LC 73–2059 ISBN 0–913672–00–9

Lists and describes—in a chart format—copying and duplicating facilities available at 223 U.S. and 19 foreign libraries. Types and costs of reprographic services provided and time needed for completion of orders are listed. Also indicated are the availability and loan status of each institution's dissertations and serials. Separate sections include complete mailing addresses and a glossary.

(73–14) **Total Community Library Service.** Garrison, Guy, ed. Chicago, Amer. Libr. Ass., 1973. x,138p. $5.00 LC 73–4310 ISBN 0–8389–0149–2

Cooperation among school, public and academic libraries to provide complete library services to their combined communities is the theme of these papers from the 1972 Conference on Total Community Library Service. Examples of past and present efforts are included with suggestions for future action.

(73–15) **Federal Library Resources: A User's Guide to Research Collections.** Benton, Mildred, comp. New York, Science Associates International, 1973. vii,111p. $10.00 LC 72–94002 ISBN 0–87837–002–1

This directory briefly describes resources and services of 160 federal libraries with collections of research value. Holdings of special materials are usually not described.

(73–16) **Libraries for Professional Practice.** Calderhead, Patricia, ed. London, Architectural Press, 1972 (distr. Crane, Russak & Co., New York) 127p. $11.50 ISBN 0–85139–565–1

Theory and practice of organizing and operating professional office libraries is briefly surveyed. Strong emphasis is on architectural firms' libraries and particularly their equipment. Listings of equipment, supplies and services are almost entirely British.

(73–17) **A Study of Six University-Based Information Systems.** Marron, Beatrice, et al. Washington, D.C., National Bureau of Standards, 1973. (NBS Tech. Note 781) 98p. $1.25

The NSF-supported information systems at UCLA, Univ. of Georgia, Lehigh, Ohio State, Univ. of Pittsburgh and Stanford are briefly compared. Separate detailed descriptions of the six systems each use the same format and style—this being what NSF and NBS intend as a major step toward standardized reporting methods on studies of NSF-supported information systems. For each system, administrative details, data bases, hardware configuration, software configuration, computer processing functions, user interface and transferability characteristics and experiences are described.

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PLACEMENT

"Positions Open" and "Positions Wanted" ads are $1.50 per line; $4.50 minimum. Current members of SLA may place a "Positions Wanted" ad at a special rate of $1.00 per line; $3.00 minimum.

In each membership year, each unemployed member will be allowed a maximum of two free "Positions Wanted" ads, each ad to be limited to 5 lines including mailing address (no blind box addresses), on a space available basis.

There is a minimum charge of $10.00 for a "Market Place" ad of three lines or less; each additional line is $3.00. There are approximately 45 characters and spaces to a line.

Copy for display ads must be received by the first of the month preceding the month of publication; copy for line ads must be received by the tenth.

Classified ads will not be accepted on a "run until cancelled" basis; twelve months is the maximum, unless renewed.

Special Libraries Association reserves the right to reject any advertisements which in any way refer to race, creed, color, age, or sex as conditions for employment.

POSITIONS WANTED

MSLS—BA English with secondary education. 7 years public library; volunteer poverty law office library. Seeks temp. position NYC. Box E–205.

Special Librarian—Seeks part-time position as researcher or in library in Chicago area. Box E–206.

Physical Science and Engineering Information Scientist-PhD (Physics) due August 1973. 18 years diversified industrial experience including literature searches, bibliographies, contacts with information sources, and reference. Seeks position in library, information group serving research and/or development, organization, or teaching. Box E–203.

POSITIONS OPEN

Midwest Metropolitan Daily—Seeks assistant to head of Reference Department. Library degree and newspaper experience required. Box E–202.

THE WORLD HEALTH ORGANIZATION

invites applications for the post of Cataloguer for its Library at Headquarters in Geneva.

Qualifications and experience required:

Degree from an accredited library school with several years' experience of original cataloguing in medical or scientific libraries. Knowledge of languages desirable particularly French, German and the Scandinavian languages.

Employment conditions:

Initial two-year contract. Salary ranges from US$ 9274 to US$ 12 074 (net of tax) plus post adjustment at present from US$ 4932 to US$ 9558 and dependents' allowances as applicable. Health insurance and pension fund.

Interested applicants should write enclosing a brief curriculum vitae quoting reference VN 73/79 to:

Chief, Personnel
World Health Organization
Avenue Appia
1211 Geneva 27
Switzerland

Candidates having the requisite qualifications and experience will be requested to complete the WHO Personal History Form for active consideration. Only candidates under active consideration will receive a reply.

POSITIONS OPEN

Private Library—SUNY Campus, *Stony Brook*, New York—Immediate opening for assistant librarian; collection of 30,000 volumes and 12,000 microforms; 20 languages, 15 different scripts. Salary $10,000–$14,000 depending upon education and experience. Experience in technical services; interest in public desirable. Command of one language group desirable: Japanese-Korean; Burmese-Cambodian-Thai-Vietnamese; Pali-Sanskrit-Tibetan. Nationality not a factor provided English is idiomatic. Organization is an equal opportunity employer. Send résumé to K. D. Hartzell, Librarian, 532 Melville Memorial Library, State University of New York, Stony Brook, New York 11790. Tel: (516) 246–8364.

Head of Reader Services and Reference Librarian IV—MLS degree and, preferably, a subject Master's degree in an appropriate field. At least four years' experience in a supervisory position in a related field in an academic library preferably in the field of business and economics. The ability to work well with other people and capacity to analyze situations pertaining to the above position. Usual benefits, including 20 days vacation per year. Salary $13,700–$20,000. Contact Mrs. Marion M. Smith, Jackson Library, Graduate School of Business, Stanford Univ., California 94305.

Serials Librarian—An unusual opportunity for a qualified serials librarian to organize and develop a new department in an academic library. Must be capable of heading an expanding department with aspirations toward automation of serial records. A second master's degree in a subject specialty is required for appointment or promotion. Senior Assistant Librarian level position, salary $10,440 to $13,308 depending upon qualification and experience.

Education & Psychology Reference Librarian—Head of Education & Psychology Reference Department consisting of two other professionals plus support staffing. Must have some experience with instructional media as well as solid reference background in education and psychology. A second master's degree in a subject specialty is required for appointment or promotion. Senior Assistant Librarian level position, salary as above.

Catalog Librarian—Opening for an Assistant Catalog Librarian for a rapidly growing University Library, to do original cataloging of materials especially in the field of science. A second master's degree in a subject specialty is required for appointment or promotion. Level of appointment may be adjusted according to applicant's experience and/or academic preparation. Senior Assistant Librarian level position, salary as above.

California State University, Sacramento is an equal opportunity employer. Apply to Gordon P. Martin, University Librarian, California State University, Sacramento, 6000 J Street, Sacramento, California 95819.

POSITIONS OPEN

Marketing Librarian—Leading New York City commercial bank seeks candidates with one to two years' experience in business or marketing library. Increased activity in our Market Research operations has created this need for a specialist with a degree in Library Science or related field. We require an individual with a high degree of initiative to assist in converting and implementing a library system for our marketing department. Primary function will be to assume total responsibility for development and maintenance of this new library. Starting salary commensurate with academic background and professional experience will be supplemented by a comprehensive benefits program. Please send résumé including salary history to: Miss H. Cameron, Personnel Department, Manufacturers Hanover Trust, 350 Park Avenue, New York, New York 10022.

THE MARKET PLACE

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